DECORATIVE EXTILES GEORGE LELAND HUNTER



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AN ILLUSTRATED BOOK ON COVERINGS FOR FURNITURE, WALLS AND FLOORS, INCLUDING DAMASKS, BROCADES AND VELVETS, TAPESTRIES, LACES, EMBROIDERIES, CHINTZES, CRETONNES, DRAPERY AND FURNITURE TRIMMINGS, WALL PAPERS, CARPETS AND RUGS, TOOLED AND ILLUMINATED LEATHERS

BY

GEORGE LELAND HUNTER

WITH 580 ILLUSTRATIONS 27 PLATES IN COLOUR

PHILADELPHIA AND LONDON

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PREFACE

Things made on the loom are called textiles, from the Latin word for cloth; and cloths used to dress the walls and furniture of rooms are called decorative, by contrast with architectural, which refers primarily to the structures decorated. So that, when it was decided to publish this book on rugs and carpets; tapestries and embroideries; damasks, brocades and velvets; chintzes and cretonnes; drapery and furniture trimmings, the inevitable title seemed to be "Decorative Textiles." Nor did the addition of chapters on Wall Papers and Illuminated Leathers render the title less appropriate, because both are also decoratively used, and rely for their success largely upon texture effects borrowed from textiles.

This is the first comprehensive book on the subject to be published. Embodying, as it does, the results of many years of intimate acquaintance with weaves ancient and modern, it appeals equally to those who buy and use, and to those who make and sell. Written in simple, direct style, even when treating technical questions technically, it will be found invaluable not only to those who study and teach in schools and colleges, but also to those who read for personal culture and domestic practice.

The need for such a book is patent. Decorative Textiles constitute the most important and beautiful part of the furnishings of our homes. Upon them we are principally dependent for our æsthetic environment. Upholsteries and draperies with their interwoven patterns in rich colours appeal greatly to both sight and touch, and transform palace and cottage alike from cold to comfortable. Damasks, brocades and velvets, after centuries of aristocratic seclusion, have by modern industrial methods and by modern machinery been brought within the reach of even the comparatively poor. All of us are constantly surrounded by ornament in the form of Decorative Textiles on chairs and couches and floors and walls and windows.

The information on the subject embodied in dictionaries and

encyclopædias and other books of reference, in all languages and in all countries, is often incorrect, generally antiquated and always inadequate. Automobiles and aëroplanes have their up-to-the-minute historians; but Decorative Textiles, with the exception of Tapestries and Oriental Rugs, have been slighted.

More than I can express, I am indebted to my publishers for the wealth of pictured examples, many in colour. To an unprecedented degree do these examples reflect on printed paper the texture of woven fabrics. In an extraordinary manner do they render it possible for me, in my text, to present clearly to the public and to the trade, the interesting facts. Delightfully easy do they make it for anyone to become familiar with the Decorative Textiles of all countries and all periods.

The main text of my book is of course Texture. The word is Latin for weave, and as might be expected, it is produced most richly on the loom. It is of Textiles the most distinctive quality, and when applied to other materials such as wood, marble and brick, iron, bronze and gold, paint, paper and cement, is merely a borrowed and imitative term.

Consequently, while keeping design and pattern and colour and their historic development constantly before me, I have in every chapter accentuated the importance of Texture. I have shown that texture is not only the quality which distinguishes Textiles above other materials, but is also the quality which distinguishes Textiles from one another. It is the quality which distinguishes a damask from a brocade, a plain weave from a twill, a satin from a madras, a velvet from a burlap, a domestic carpet from an Oriental rug.

For a descriptive bibliography of the most useful handbooks, and the most valuable reference books, I refer my readers to Chapter XXI.

New York, June, 1918

G. L. H.

EDITOR'S NOTE

Decorative Textiles is the first in a series of authoritative books on the modernised house furnishing arts. The material presented in the present volume constituted, for the most part, a series of articles which appeared in Good Furniture Magazine during the years 1915, 1916, 1917 and 1918.

So rapid has been the progress in many departments of the textile arts in America since the war, that constant additions and revisions have been necessary in the present volume, especially in the chapters on Damasks, Brocades and Velvets and on Chintzes and Cretonnes and Laces. This has occasioned the introduction of more than one hundred plates not originally contemplated, including four colour plates of great importance, showing painted cottons from India, recently rediscovered by Stewart Culin, Curator of Ethnology, of the Brooklyn Museum of Arts and Sciences.

In the preparation of the plates no expense has been spared to exhibit, to the fullest extent possible by the most improved printing and engraving processes, the dominant quality of textiles, viz., texture, of which the author treats from first to last. The textiles illustrated have been assembled from many sources. Without the intimate contact established by the author and by the publishers with the foremost textile markets in the world and with America's wonderful textile mills, Decorative Textiles would not have been possible.

The editor appreciates the warm friendships which his collaboration in this work has won him, on the part of the author and of those in the textile trades whose devotion to the subject is so fully expressed in the solution of the many technical difficulties, which, with their generous co-operation, have been so happily overcome.

Grand Rapids, September, 1918

HENRY W. FROHNE



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CHAPTER 1

DAMASKS, BROCADES AND VELVETS PART I

Damasks, brocades and velvets are the aristocrats among shuttle fabrics made for the decoration of walls and furniture. Primarily they are *silk weaves*, though often enriched with gold or cheapened with linen and cotton.

The history of damasks, brocades and velvets is the history of ornament in silk. When the less expensive materials are employed, they are usually hidden beneath the surface, except in linen damasks (Plate B 4 of Chapter IV), that on account of their brilliant sheen and immaculate whiteness (and also because they can be washed) have won the kingdom of napkins and tablecloths for their own, and also except in woollen damasks and mohair velvets and flax velours, that attempt in weight and strength to make up for what they lack in essential beauty. Cotton brocades, with or without the mixture of mercerised, are, of course, mere imitations, that by their very existence glorify the superior virtues of what they imitate.

As everyone interested in decorative art is aware, the terminology of textiles is in a particularly unsatisfactory condition. Dictionaries and encyclopædias in all languages are filled with definitions that were evidently composed by editors far from a knowledge of the actual facts. One justly famous dictionary in the English language defines tapestry as "not made with a shuttle like other textiles, but with a needle." Evidently the editor was translating from the French and mistook broche for needle instead of bobbin.

Another famous dictionary also published in America defines damask as "a rich silk fabric woven in elaborate patterns having a raised appearance." Certainly this is misleading. The distinctive characteristic of damasks as compared with brocades is flatness. Furthermore, damask as compared with brocade patterns are simple.

Even the great textile authorities, while agreeing on fundamentals, differ seriously in their definitions of terms like brocatelle and lampas. Even our great museums attach labels that are often misleading and sometimes false. And as for the trade, it seems to be the ambition of many manufacturers and importers to demonstrate the distinctiveness of their goods by means of the false distinctiveness of the terms they employ.

DEVELOPMENT OF THE LOOM

Tapestries and their imitations I define and describe in Chapter XII. Of real tapestries I say that "they are ribbed or rep fabrics with surface consisting entirely of weft threads." Between real tapestries and the weaves that I am now discussing, the difference is fundamental. The surface of damasks, brocades and warp velvets consists largely of warp threads. Moreover, these are not bobbin fabrics like real tapestries, but shuttle fabrics in which the lessened control of the weft, caused by the substitution of shuttle for bobbin, is made up for by increased ability to control and manipulate the warp. (See second paragraph of Chapter VIII.)

The first great step in the mechanical development of the loom was the invention of treadles that freed the left hand from the duty of pulling leashes (lisses) to form each new shed of the warp.

The *second* great step was the invention of the shuttle to facilitate the passing of the bobbin through the shed.

The third great step was the substitution for treadles of a draw boy (hence the term draw loom) who was mounted on a platform above the warp, where he pulled cords or leashes that raised or lowered the warp threads as the pattern required, vastly increasing the possible complexities of weave. The draw loom, invented and developed by the Chinese to meet the exigencies of weaving the exquisitely fine threads of silk, first made possible and practicable the production of damasks, brocades and velvets.

The fourth great step was the invention of the Jacquard attachment in the time of Napoleon. This attachment was merely a mechanical contrivance, but it supplanted the draw boy, just as the draw boy had supplanted treadles, and just as treadles had supplanted the weaver's left hand. It vastly increased the speed and accuracy of weaving, and so lessened the cost of producing intricate patterns that ever since then intricate patterns have been available

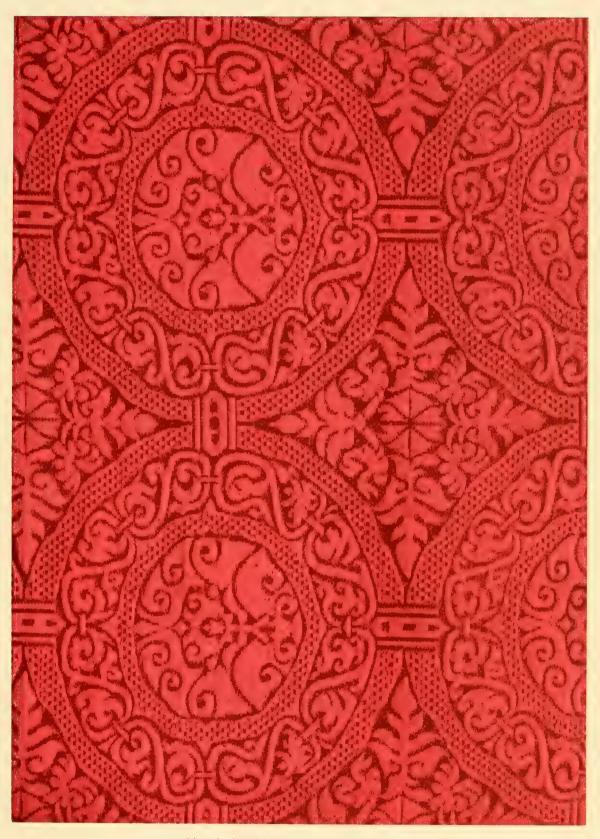


Plate I DAMASK MADE IN AMERICA From an old Italian original

for the least expensive purposes, provided the quantity used is sufficiently large. Once the pattern is punched on a series of Jacquard cards, and the loom is mounted, it is just like playing a pianola or working a hand organ. Repetition is easy and costs little. Diligence is more important than intelligence, and the weaver need not have the slightest art knowledge or feeling.

The *fifth* great step was the application of *power* (water, steam or electricity) to do the work of both draw boy and weaver. This greatly increased speed, while relieving the weaver of most of his manual labour, and setting him free to superintend the operation of several looms. However, the more complicated and exquisite velvets and brocades continue to be woven on *hand looms*, but with the Jacquard attachment.

THE WEAVE OF DAMASKS

The fundamental and modern weaves I shall analyse and illustrate in Chapter IV. Suffice it here to say that damask is a satin weave (Plates I, II, III, D, of Chapter IV) sometimes with taffeta or grosgrain or twill or weft satin figures on warp satin ground; sometimes with warp satin figures on ground of contrasting weave. The basis of damask is satin with a surface that consists of parallel threads, whose parallelism causes the smooth shiny surface that is characteristic of satin, and that makes satin the weave most characteristic of silk.

For example, the damask illustrated on Plate VI has grosgrain figures on a satin ground. This means that the ground consists of parallel threads running the way of the warp, while the figures show ribs that are perpendicular to the surface threads of the ground, and hence contrast strongly with it, producing the light and shade effects that are characteristic of damask, and that distinguish it from most other fabrics, although not, of course, altogether from the novelty weaves that imitate it. What I wish most of all to make clear at this point is that damask is not an accident, nor a chance term the application of which can be left to the whim of manufacturers or dealers. Damask is a figured fabric with the lines of the ground running in one direction while the lines of the figures run in another.

When the surface is a twill, we have diagonal line effects or ribs that, of course, make a weaker contrast than would the ribs of grosgrain. For example, the figures of brocatelle are in satin, and the

DAMASKS, BROCADES AND VELVETS

ground is a twill, the figures rising in bold relief because of the coarse linen or cotton weft threads that are buried beneath the surface. The easiest damasks to analyse are those made for the table in white linen and imitation in cotton because in them the effect of the contrasting threads of ground and figures is not complicated by colours as in lampas, the ground of which is in one colour and the figures in another; or, in one-colour silk damask (Plate D 2 of Chapter IV) where the contrasting lines produce a difference in tone between figures and ground, though the threads of both are actually of the same tone.

Moreover, in all the damasks, coloured lampas as well as white linens, the tones change as the point of vision changes. Figures that look *mat* from one point of view become glossy from another, while the ground is transformed in the opposite direction. It is this fascinating interplay of tones due to the contrasting surface of parallel lines in relief, which constitutes the character and charm of damask.

THE WEAVE OF BROCADES

Brocade (Plate G2 of Chapter IV) might be described as embroidery made on the loom. It consists of embroidery effects produced by floating wefts on the surface of damask or other weaves. Some of the most magnificent Renaissance tapestries woven in Brussels in the sixteenth century, have brocaded effects produced on the garments of personages by floating wefts in groups over several warps, with the relief heightened by couching. While the figures of damask tend to be flat and large and continuous and of the same colour though different in tone from the ground, the figures of brocade tend to be in relief and small and detached, and in several colours.

In other words, the figures of brocades are such as would be usually produced on a draw loom by the use of extra bobbins (croches); hence, brocade that is English for the Spanish form of the French broché (brocaded). While broché really means the same as brocade, it is commonly applied to light-weight silks only, the term brocade (French brocart) being reserved for brocaded damasks and other heavy silks of elaborate design.

THE WEAVE OF VELVETS

Of velvets there are two fundamentally different types, those with pile formed by extra wefts and those with pile formed by extra



Plate II Damask made in America, reproduction of a Louis XVI original

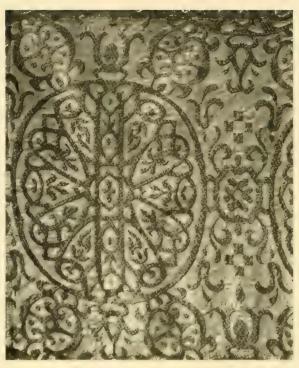


Plate III-Broché silk, made in America



Plate IV American gold brocade based on an ancient Sicilian fabric



Plate V - Brocade made in America, reproduction of one in Brussels Museum

The former, like real tapestries, originated on the bobbin loom, while the latter, like damasks and brocades, originated on the shuttle loom. Furthermore, just as real tapestries are vastly more ancient in their origin than damasks and brocades, so weft velvets are much older than warp velvets, and we have examples of them dating as far back as the third century A. D. I refer to the Coptic fabrics with coarse uncut pile of wool and linen. The surface is very open, the rows of loops being far apart with plain canvas between. The loops consist of weft threads that go over and under alternate pairs of warps. Many of the linen loops are particularly long and shaggy; all of the woollen loops, short and thick and soft. These Coptic velvets I regard as the primitive form, not only of weft velvets, but also of hand-knotted rugs. The step from a weft that loops up between alternate pairs of warps, to short pieces of weft that are knotted around each pair of warps is direct and obvious. The socalled "finger rugs" still made in London and elsewhere are a survival of the ancient pile fabrics of the Coptic velvet variety, and get their name primarily from the fact that the finger is used in forming the loops.

One of these ancient Coptic velvets in the Metropolitan Museum, dating from the fourth or fifth century after Christ, is illustrated on Plate XIV. The dark parts are in wool, the light parts in linen. It will be noticed that the rows of long linen loops are twice as far apart as the rows of short woollen and short linen loops, and that the figures are formed by contrast of dark-brown wool and creamwhite linen. Notice also that where the pile wefts pass, the canvas is corded with three extra flat wefts in order that the loops may be firmly held. Modern examples of weft velvet with cut pile are velveteens and corduroys.

However, ordinarily by velvets we mean warp velvets of the kind originated in silk, and do not even include the coarse woollen and worsted velvets woven for floor coverings, such as brussels and wilton carpets and rugs. Upholstery velvets are usually called velours (the French word for velvet), whether the pile be in silk or flax or wool or cotton. The pile of most warp velvets is formed by looping extra warps over wires inserted weft-wise in the shed. When all of the pile is to be cut, the cutting is done upon the withdrawal of the wires by knives at the end of each. When only part of the pile is to be cut, in other words when the velvet is to be cut and

DECORATIVE TEXTILES

uncut, the cutting is done with a hand knife. Plain velvets have a uniform surface of solid colour. A modern way of making velvets without the use of wires is to weave two cloths together face to face, with special pile warps working back and forth between them and joining them. The cutting of this common pile by a knife that travels back and forth across the loom, produces two velvets economically and with a minimum of effort. Recently, an American manufacturer has invented a way of figuring these double-woven velvets in two-tone, by inserting the pile warps thicker in the figures than in the ground (Plate XVII). All of the more complicated velvets, such as those developed in Venice, figured by using pile of two different heights; and Genoese velvets having cut pile that contrasts with uncut pile and often with flat satin or twill or taffeta ground, the last sometimes in gold (Plate X of Chapter IV), are still woven on hand looms, like many of the more complicated brocades, but usually with the Jacquard attachment.

MADE IN AMERICA

One of the best evidences of the rapid progress of the United States in silk weaving is the fact that all of the examples illustrated in connexion with this chapter (except the one on Plate XIV) were made in America. Plate I is a red damask reproduced from an ancient Italian church vestment of the fifteenth century.

Plate V is a brocade based on an Italian original in the Brussels Museum, illustrated and catalogued by Madame Errera as No. 29, attributed to the "thirteenth or fourteenth century," and woven of silk, linen and gold. The pattern shows two hares addossé et regardant, inside the circle. Samples of the same fabric are illustrated by Cole on page 65 of his "Ornament in European Silks;" by Fischbach in colour on Plate LXXX of his "Wichtigsten Webe-Ornamente;" and by Dupont-Auberville in colour on Plate 14 of his "Ornement des Tissus." There are actual examples preserved both at South Kensington and in the Cluny Museum.

Plate II is a satin damask copied from an ancient Louis XVI piece that has long been in the possession of the manufacturers, as part of the upholstery of a chair which is said to be one of a set presented by the French King to his queen, Marie Antoinette, for use in the Petit Trianon. The musical trophies are characteristic of the period, and the execution of the fabric is beyond cavil. I have used

the term satin damask merely to specify that it has a satin ground, while the figures are in grosgrain (coarse taffeta). If the ground were in grosgrain and the figures in satin, like Plate IX, I should not hesitate to speak of it as a grosgrain damask.

Plate X is a gold brocade copied from a thirteenth century original that is No. 32 in Madame Errera's catalogue mentioned above, and that is pictured in colour by Fischbach on Plate XXI of his "Ornamente der Gewebe." Fischbach quotes an inventory of the Cathedral of St. Paul in London to show that in the year 1295 a fabric like this was called *diaspre*, from which is derived the modern diaper (pattern, especially one of small diamonds or fret work).

Plate III is a soft and drapy soie brochée (broché silk), with twill figures on taffeta ground. The pattern suggests Moorish iron work of the fourteenth century. Plate IX is a damask with large and heavy satin figures on a grosgrain ground. Plate XVI shows a reproduction of an Italian or Spanish damask of the sixteenth The Renaissance character of the design stands out century. strongly by contrast with the Gothic of Plates V and X. The original in the Brussels Museum is in red and blue on yellow, and is catalogued and illustrated by Madame Errera as No. 254. There are also ancient examples in several other museums: At Oldenburg, Turin, South Kensington, Rome, the Crocetta in Florence, Düsseldorf. Plate XI is a damask reproduced from a Sicilian one that is catalogued by Madame Errera as No. 91 and that dates from the fifteenth century. A similar example is reproduced in colour on Plate 297 of his "Gewebe-Sammlung des K. Kunstgewerbe Museums Berlin" by Lessing, who describes it as "Spanish about 1500." Fischbach calls it "Italian or Spanish of the thirteenth or fourteenth centuries;" and the Hamburg Museum, "Spanish of the fourteenth or fifteenth centuries." The differences of attribution indicate what is true, that much expert work still has to be done on the textile collections of our various museums, and that it will be an herculean task to eliminate errors based on the ignorance of the nineteenth century.

Plate XV is classed by the makers as a *silk tapestry* and will serve as a definition of that term. It has a surface of coarse silk wefts tied with slender warp binders, and cotton warps buried beneath the surface. In appearance it resembles *jacquard verdure tapestry* (see Chapter XII), being comparatively flat with merely

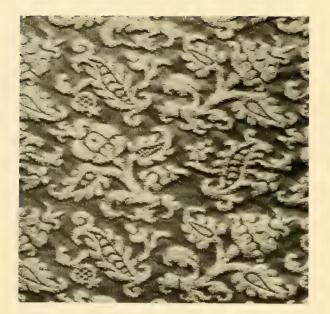


Plate VI -Silk damask, loom finish, made in America



Plate VII American reproduction of French damask



Plate VIII American reproduction of French damask



Plate IX Grosgrain damask, made in America

line effects to suggest ribs running the way of the wefts. Plate XX, though sometimes called a silk tapestry, is properly classed with brocades. It has a Persian pattern of peacocks, butterflies and cypress trees, richly expressed in polychrome weft floats on a cotton ground. Plate VI is a satin damask with grosgrain figures that swell in high relief because "loom finished"—that is, left as they come from the loom, without having their spirit crushed by rollers that make them level with the ground of the damask. Plate XIII is a brocade with pattern unusually large. Plate XII is a Louis XVI brocade of a type that is both excellent and popular. Plate XIX is an Adam armure, with typical vase and small figures, executed in warp floats on grosgrain ground.

THE GROWING OF SILK

Silk, wool, linen and cotton are the principal food for looms, although hemp, jute, ramie and other fibres are occasionally employed as cheaper substitutes. Each of the master materials owes special allegiance to a special country. From time immemorial, China has been famous for silk, Egypt for linen, India for cotton, and Flanders for wool.

The Chinese have a legend that the silk industry was founded 2698 years before Christ, by Si-ling-chi, wife of the great Prince Hoang-ti. She was instructed by her husband to examine the silkworms and see if their cocoons could be made useful. So she collected many of them, nurtured them with the greatest care, and finally succeeded in making silk thread out of which she wove beautiful cloths. As a perpetual reward she received divine honors and is known as the "Goddess of Silk." Over 2,000 years later the art was carried to Japan by four Chinese maidens, who instructed the Japanese court and people how to weave both plain and figured goods. In their honor a temple was erected in the province of Settsu, and the industry was encouraged and developed until it became of national importance. About the same time, tradition has it, a Chinese princess carried the eggs of the insect, and the seed of the mulberry tree, on the leaves of which it feeds, to Khotan in her head dress and instituted the culture of silk there. From there sericulture spread southward to India and westward to Central Asia and Persia.

The first notice of the silkworm in Western literature is by Aristotle who speaks of it as: "A great worm which has horns and



Plate X Brocade made in America, reproduction of one in the Brussels Museum



Plate XI Damask made in America, reproduction of an original in the Brussels Museum



Plate XII—Louis XVI brocade, made in America



Plate XIII Large-figured brocade, made in America

so differs from others. At its first metamorphosis it produces a caterpillar, then a bombylius, then a chrysalis—all the three changes taking place within six months. From this animal, women separate and reel off the cocoons, and afterwards spin them. It is said that silk was first spun in the Island of Cos, by Pamphile, daughter of Plates." Aristotle, it will be remembered, was the pupil of Plato, and the teacher of Alexander the Great, and lived in the fourth century before Christ.

Soon, allusions to silk became common in Greek and Roman literature. But even Pliny in the first century after Christ told less about the silkworm than could be learned from Aristotle. The Chinese origin of silk was indicated clearly enough by the Latin name for it, sericum, derived from Seres, the Roman name for the Chinese, which itself was borrowed from the Greeks. The word is evidently connected with the Chinese sse (silk), the French soie, the Italian seta, the Spanish seda, the German seide, the Russian shelk, the English silk.

Always the silks that found their way to Rome brought high prices and their use by men was considered effeminate luxury. It would seem from an anecdote about the Emperor Aurelian, who lived in the third century after Christ, and who neither used silk himself nor would allow his wife to have a single silk dress, that a pound of silk at that time was worth a pound of gold. Nevertheless, it was stated a century later by the historian Ammianus Marcellinus, that silk had already come within the reach of the common people.

Not until the reign of the Emperor Justinian in the sixth century after Christ, two centuries after Constantine had transferred the capital of the Roman Empire from Rome to Constantinople, was the growing of silk permanently established in Europe. The story goes that two Persian monks, who had lived long years in China, and learned the whole art and mystery of rearing silkworms, visited Constantinople and told what they knew to the Emperor. He bade them return to China and attempt to smuggle thence the materials necessary for the cultivation of silk. This they accomplished by concealing eggs of the silkworm and sprouts of the mulberry tree in their pilgrims' staffs made of bamboo.

Rapidly the culture of silk spread through the Byzantine Empire, especially to Syria and Sicily, where it continued to flourish after the Mohammedan conquests. In the twelfth century it was

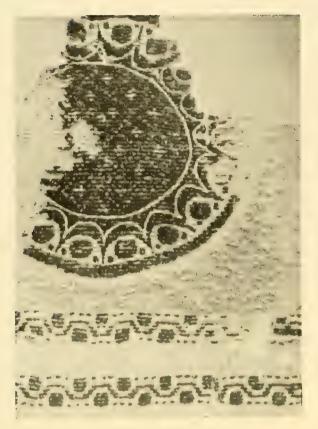


Plate XIV-Primitive Coptic velvet



Plate XVI -Damask made in America, reproduction of an original in the Brussels Museum

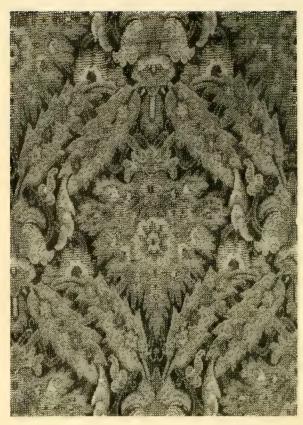


Plate XV Silk tapestry, made in America



Plate XVII New kind of velvet recently originated and made in America

especially encouraged in Sicily by the Norman, Roger II. From Sicily it was carried northward throughout Italy, and silks soon became one of the most valuable agricultural products of that country. Into Spain the Mohammedans introduced not only the wearing of precious silks but also the culture of the silkworm, and by the tenth century Spain had a large surplus of raw silk for export. In France, Lyons early became an important centre of silk weaving, and is said to have employed 17,000 weavers in the sixteenth century, but the efforts of Charles VIII in 1495 to promote the growth of silk do not appear to have been especially successful. A century later Henri IV took great pains to encourage the growing of mulberry trees and the culture of the silkworm, and succeeded in freeing France from dependence on other countries for raw silk.

Francis I had encouraged the industry at Lyons, giving unusual privileges to Italian weavers who settled there. One of the four large mural paintings in the Crefeld Textile Museum in Germany depicts the occasion of his visit to Lyons with his wife, Eleanor, the sister of the Emperor Charles V. The other three paintings show (1) the Reception by Justinian and Theodora of the monks who brought the silkworms from China to Constantinople. (2) The Reception, by Roger II of Sicily, of the Greek weavers from Athens, Thebes and Corinth. (3) The Reception by Napoleon of Joseph Marie Jacquard, inventor of the Jacquard attachment that revolutionized the weaving of elaborately figured fabrics.

Today the countries that rank first in the production of silk are China, Japan and Italy; those that rank first in the manufacture of silk are the United States, France, Germany, Switzerland, China, and Japan. Although no silk is now grown in America, the attempt has often been successfully made: by Cortez in Mexico in the sixteenth century; by James I in Virginia in the seventeenth century; in Georgia, South Carolina and Connecticut in the eighteenth century.

At the beginning of the nineteenth century Manchester, in Connecticut, had become an important centre of silk growing, and many families of Connecticut and Pennsylvania, as well as some of New York, New Jersey, Delaware, Maryland and Virginia produced from five to fifty pounds yearly. In 1832 the legislature of Connecticut offered a bounty for mulberry culture and fixed the price of raw silk at fifty cents a pound. Maine, Massachusetts, New Jersey

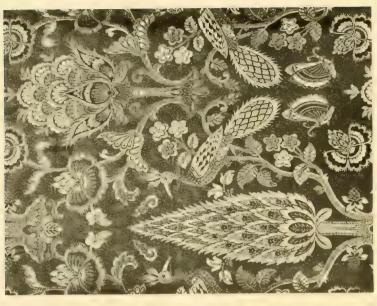


Plate XX -Brocade made in America, Persian style

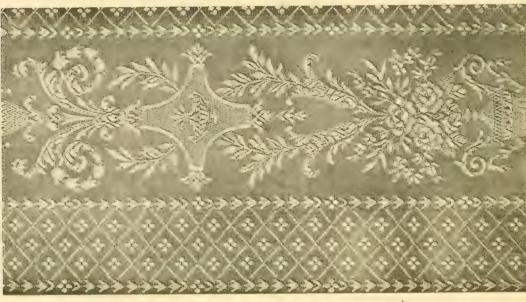
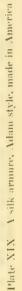


Plate XVIII Modern reproduction of English brocade



16

and Pennsylvania soon offered similar bounties. In 1836 a "silk mania" broke out resembling the famous "tulip mania" of Holland. Mulberry cuttings two feet long sold at from \$25 to \$500 a hundred. One nursery man ordered 5,000,000 trees from France, making an advance payment of \$80,000. Everybody was about to acquire a fortune growing silk, and other crops were neglected. After three years the bubble burst and thousands were ruined. By 1840, mulberry trees were selling for five cents each. Blight of the mulberry trees completed the ruin of the raw silk enterprise and now, although the United States stands first in the quantity of silk manufactured, it grows none at all.

CHAPTER II

DAMASKS, BROCADES AND VELVETS PART II

THE DEVELOPMENT OF PATTERNS

The names most famous in the history of damasks, brocades and velvets are China, Japan, Persia, the Byzantine Empire (i. e., the Roman Empire after Constantinople succeeded Rome as the capital, 330-1453), Sicily, Italy, Spain, France. In all of these countries, patterns of distinctive style were developed, and actual examples are preserved in European and American collections, which afford inspiration for modern designers as well as facts for decorative historians. Among the most important collections are those at Lyons in France; the Musée des Arts Décoratifs, and the Cluny Museum, in Paris; South Kensington in England; Crefeld, Hamburg, Oldenburg, Nüremburg, Dresden, Düsseldorf and Munich in Germany; the Kunstgewerbe Museum in Berlin; the Kunst and Industrie Museum in Vienna; the Musée des Arts Décoratifs in Brussels; Florence, Milan, Rome and Venice, in Italy; the Metropolitan Museum of Art, and the Museum of Cooper Institute, in New York; the Pennsylvania Museum in Philadelphia; the Art Institute in Chicago.

At an early period the Chinese began to weave elaborate silk tapestries, damasks and brocades. In the third century after Christ the monk Dionysius Periegetes wrote: "The Seres make precious figured garments, resembling in colour the flowers of the field, and rivaling in fineness the work of spiders." An account of the designs used by the Chinese in their silks would illustrate richly all their other arts, as these designs have constantly supplied motifs for the decoration of other materials. At least ten per cent of modern Chinese porcelain is adorned exclusively with brocade patterns, and a writer on Chinese ceramics estimates that no less than two-thirds

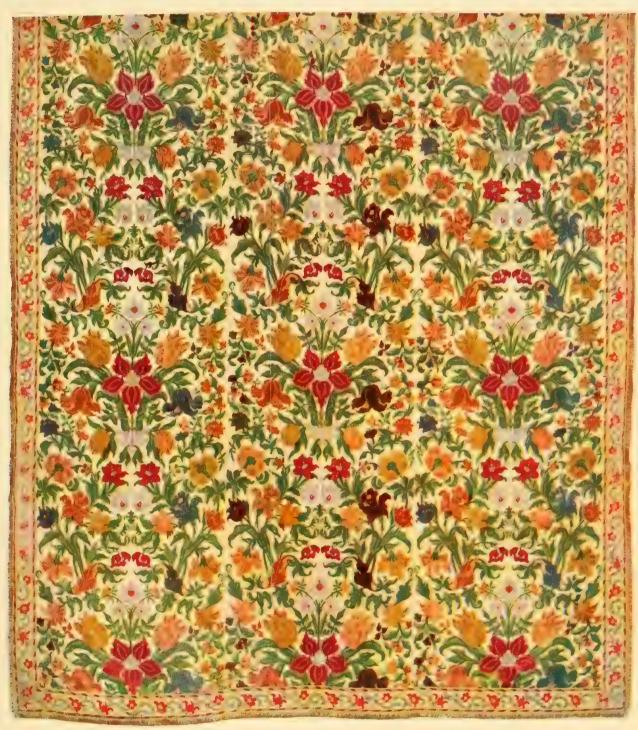
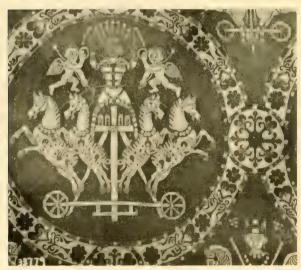


Plate I ANCIENT GENOESE JARDINIÉRE VELVET IN SEVEN COLOURS



Plate II Plate III

SASSANID PERSIAN "DOUBLET" PATTERNS IN THE BERLIN MUSEUM





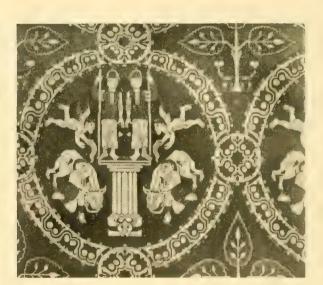


Plate V

BYZANTINE "DOUBLET" PATTERNS, THE ONE ON THE LEFT IN THE BRUSSELS MUSEUM, AND THE ONE ON THE RIGHT IN A CHURCH AT MAESTRICHT

of the designs used on porcelain during the Ming dynasty were taken from ancient silk brocades or embroideries, the remaining third being taken direct from nature or reproduced from old bronzes. This explains the frequency on enamels and porcelains of designs in foliated panels and medallions, on brocaded grounds.

A general history of Chinese art written in the Ming period in the first half of the seventeenth century, devotes its twelfth book to silks. It states that many of the ornamental designs of the ancient Han period (206 B. C. to 221 A. D.) were still in use, such as dragons, phoenixes, birds and flowers, peachstones and grapes, and that in the third century after Christ the Emperor Ming Ti of the Wei dynasty sent five rolls of brocade with dragons woven on crimson ground, as a present to the Empress of Japan. Under the Sung dynasty (960-1279), the names of more than fifty famous brocade designs of the period are given, among them: Dragons in Water, Pearls and Grains of Rice, Cherries, Lotus and Tortoises, Musical Instruments, Lions Sporting with Balls, Tree Peonies, Peacocks, Wild Geese Flying in the Clouds, Storied Palaces and Pavilions, besides numerous stripes and small geometrical designs, groups of symbols, and decorative combinations of Chinese letters. The same patterns are still woven and exported.

Many of the first Chinese designs are floral, but the flowers are always more naturalistic than in Persian and Saracenic art. In the famous hundred flower brocade (compare the Flemish millefleur tapestries) it is not difficult for anyone familiar with Chinese flora to identify each and every plant. As in porcelain, so in textiles, the chrysanthemum and the peony are favorite flowers.

The chrysanthemum is often found in combination with butterflies artfully conventionalised, but yet very realistic in effect. The lotus (nclumbium) is often much idealised but recognisable by the characteristic seedpod in the middle of the flower. It is often used on a field worked with leaves and stems in rococo scrolls, bordered with swastika and fretwork bands whose angles sometimes grow into forms that suggest dragons' heads. It is also combined exquisitely with pairs of wide-winged bats.

SASSANID PERSIAN PATTERNS

Persia, after being subject to the Parthians for four hundred years, recovered its independence in the third century after Christ,

DECORATIVE TEXTILES

and flourished under the Sassanid kings until the seventh century, when it was subjugated by the followers of Mohammed. The greatest of the Sassanid kings was Chosroes I, contemporary with the Byzantine Emperor Justinian. During his reign the arts of peace flourished, especially the art of weaving. Interesting Sassanid silks are preserved in the Berlin Kunstgewerbe Museum, and in the Victoria and Albert Museum at South Kensington, as well as in the treasuries of several ancient German churches. Most of the designs show large circular bands standing in vertical columns, one directly over the other. The circles are often tied together at the sides as well as at top and bottom, by small circles and roses and polygons, and the designs within the large circles are often doublets like those on the ancient Assyrian bas-reliefs, the personage or group on the right being an exact duplicate (reversed) of the personage or group on the left.

This arrangement or grouping is also characteristic of Byzantine fabrics. A brilliant specimen of Sassanid Persian weaving preserved in the church of St. Servatius at Maestricht, shows circles each of which enclose doublet Persian kings on horseback, hunting doublet lions with bow and arrow. Another in blue silk preserved in the Berlin Kunstgewerbe Museum (Plate III), shows doublet cavaliers on winged horses, enclosed in a circle whose border consists of stags and dogs enclosed in tiny circles.

Two of the most important motifs in Sassanid decorative art were the fire altar (pyre) and the tree of life (hom). Especially characteristic of Zoroastrianism—that was the national religion of Persia for seventeen hundred years until the Mohammedans came, and that had been established by Zoroaster (Zarathustra) on the basis and as a reform of the ancient Iranic superstitions—was the worship of fire. In this religion the place of temples was taken by towers, on the top of which burned the sacred fire, a visible sign at night of the faith that helped cement together the Bactrians and Medes and Persians and other tribes of Iran (about the same territory as modern Persia). The fire altar appears on a reddish purple silk that is preserved in the Church of the Couture in Le Mans, between doublet lions that lick the flame and face each other with tails rampant. On the flank of each lion is a circle containing a crossshaped eight-pointed star of the kind that is found on many Byzantine tissues. The hom, that for the Persians was the symbol of the

eternal renaissance and reincarnation of persons and things, started as a date tree, but as time passed assumed various forms, many of them fantastic. It appears most interestingly on a silk from the Church of Saint Ursula in Cologne (Plate II), now in the Kunstgewerbe Museum in Berlin, flanked by doublet cavaliers who face away to repulse the attack of doublet lions that spring upon them, while doublet cherubs lean from the trefoil-patterned foliage to render aid. Beneath the group are huge doublet lions that face each other reclining, while above are doublet wild goats that leap away from a small three-branched tree topping the tree of life. On account of the ornament upon the heads of the cavaliers—a crescent surmounted by a star between the two wings, which is also found upon the coins of Chosroes II (591-628)—Lessing dated the fabric as made in that monarch's reign.

BYZANTINE ROMAN PATTERNS

The reign of Justinian (527-565) was a revival of success in war and prosperity in peace, for the Byzantine Empire. His armies reconquered Italy and Africa, and he encouraged agriculture and manufactures in every possible way. He not only promoted the weaving of elaborate fabrics, but, as I said in Chapter I, introduced the cultivation of the mulberry tree and the silkworm, so that the Western world might no longer be completely dependent upon the Orient.

Byzantine art is of course based upon Roman art. But it is Roman developed in a Greek, a Christian, and an Oriental direction. When Constantinople succeeded Rome as the capital of the Empire, in the fourth century, the Greek language began to replace Latin as the language of the Court, Christian symbolism began to crowd out classic and pagan ornamental forms, and Persian as well as Syrian and Egyptian began to influence decoration and costume and architecture.

By the time of Justinian, Byzantine art had become the dominant art of the Mediterranean world. One explanation of the great similarity between Sassanid and contemporary Byzantine silks is the fact that many of the Byzantine weavers were imported by Justinian from Persia. However, for at least two centuries before this, the weavers of Constantinople had been converting raw silk received from the Far East, into elaborately patterned cloths. Bishop Asterius

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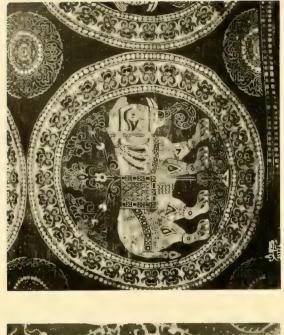


Plate VII-Byzantine design from the grave of Charle-magne, in the Berlin Museum

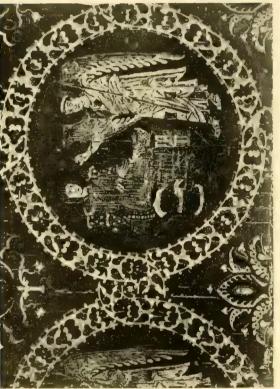


Plate VI Byzantine "Annunciation" design, in the Vatican

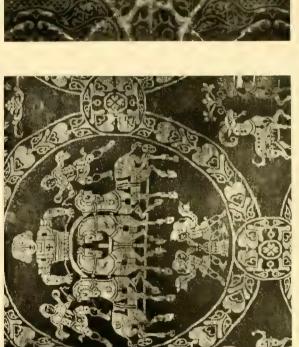


Plate VIII Byzantine "Quadriga" design, in the Cluny Museum



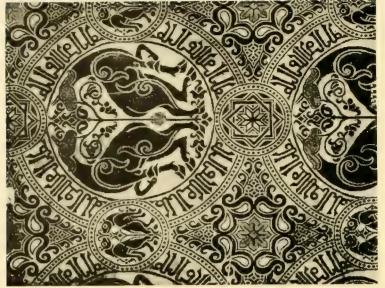
Plate IX Baroque velvet

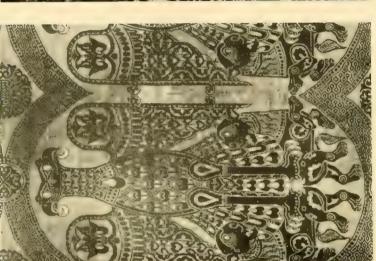
in the fourth century speaks of their extraordinary ability, saying that they "rivalled painting and knew how to express the figures of all the animals by combination of warp and weft." But he was scandalised to see depicted on the fabrics scenes of the New Testament. He was indignant at the frivolous and haughty persons who wore the gospel on their cloaks instead of carrying it in their hearts.

Paul, the Silentiaire, in his poetic description of Santa Sophia—the famous cathedral built by Justinian, which still survives in Constantinople, having been transformed into a Mohammedan mosque when the Turks captured the city in 1453—makes it clear that the altar hangings were not embroidered but woven, when he speaks of their ornamentation as "not produced with the aid of the needle introduced laboriously by hands through the tissue, but with the bobbin that constantly varies the size and color of the threads furnished by the barbarian worm."

The Byzantine weavers were not content to take the ancient Greek and Roman mythological and historical pictures and decorative motifs and reproduce them in Byzantine style; they sought rather to express the dominant characters and characteristics of Christianity, the splendor of the triumphant religion, the divine majesty, and the protecting rôle of the Saints. From Syria and Persia and still farther East, came the tendency to interpret nature motifs decoratively, to show fantastic animals and strange flowers quaintly transformed or almost transformed into pattern. There was an Asiatic wealth of griffins and unicorns and basilisks and peacocks and eagles and wild ducks and leopards and tigers and lions and elephants, framed in circular bands and geometrical compartments, or arranged horizontally between parallel bands.

From Roman chariot races that were continued as one of the favorite public amusements of Byzantine Rome, came the frequent representations of the quadriga. One of the most important, now in the Brussels Museum (Plate IV), is a long band of silk adorned with three tangent circles, each of which displays the Emperor crowned and with a whip in each hand driving a chariot, the four horses of which rear and plunge in pairs to the right and to the left. A flying cherub on each side of the Emperor offers him a crown. A similar pattern appears on a purple silk now in the Cluny Museum (Plate VIII), once at Aix-la-Chapelle. The driver holds the reins of four horses ready to dash into the arena, while two slaves above





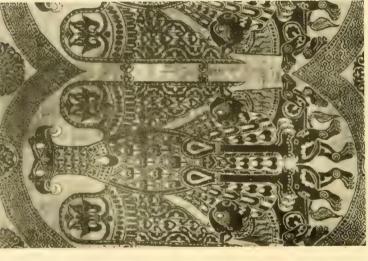
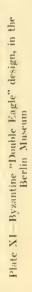


Plate X Byzantine "Eagle" design, in the Church of St. Eusebius at Auxerre



present him with whip and crown, and two personages below precede the quadriga with horns of plenty, from which they pour money upon an altar. Circus combats were also a favorite subject. A small fragment of purple silk at the Cluny Museum shows, surrounded by a white floral border, a warrior who tramples a lion beneath his feet. An ancient cloth from the collection of Canon Bock, now shared between the museums of South Kensington, Lyons and the Cluny, shows between parallel floral bands, combatants clad in short tunics and sandals, with legs bare. Each combatant strangles a lion, and is the "doublet" of another combatant whom he faces, and of whom he is the exact reproduction reversed in direction. Another rich fabric at Maestricht (Plate V), part of the garment in which Saint Servatius, the patron of the church, was buried shows circular bands nine inches in diameter, each containing the Roman Dioscuri standing upon a short Doric fluted column whose base is adorned with a festooned bucranium, while on either side a bull is about to be slaughtered for the sacrifice, and above a winged cherub pours the libation. The small circles that intersect and connect the larger circles contain each four fleurs-de-lis that alternate with trefoil anthemions. This cloth recalls the scenes found on the walls of the catacombs of the early Christians.

One of the most beautiful of the non-symmetrical subjects is the Annunciation that appears in large circular medallions on a purple silk, at the Vatican in Rome (Plate VI). The Virgin is seated on a lofty chair with circular back, a stool beneath her feet and on each side a wicker backet, one holding the wool that she has spun, and the other the wool that she is about to spin. The Angel advances towards her with right hand extended, long tunic, and enormous wings, and hair bound in a Greek fillet. Both personages have eyes dilated and enlarged, but mouths barely indicated. This cloth is important for the information it gives about costumes and furniture as well as about fabric pattern.

A subject that suggests "Daniel in the Lion's Den" appears in blue, white and yellow, on chamois ground, on a fabric at the Cathedral of Sens. In high elliptical medallions, a long-haired personage in diamond-diapered jacket and short tunic, chokes back two lions erect on their hind legs that threaten him from either side, and tramples two others beneath his feet. The magnificent cloth from Aix-la-Chapelle (Plate VII) that once enveloped the bones of

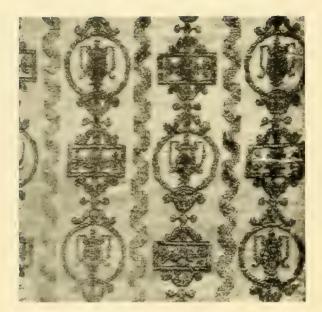


Plate XIII—Louis XVI velvet



Plate XIV - Italian Renaissance damask



Plate XV—Louis XVI brocade



Plate XVI Italian velvet of the early eighteenth century

Charlemagne (crowned Emperor of Western Europe by the Pope on Christmas Day 800 A. D.) bears an inscription in Greek as well as large circular bands, each of which contains an elephant. The inscription gives the names of Michael, Lord High Chamberlain of the Byzantine Court, and of Peter, the Governor of Negrepont. In the church at Siegburg is a large piece of purple silk decorated with lions and bearing the names in Greek of two Byzantine Emperors of the tenth century. The lions recall those pictured on the great frieze of the palace of Nebuchadnezzar at Babylon, and that of the Persian Darius now at the Louvre. The sudarium of Saint Germain in the Church of Saint Eusebius at Auxerre (Plate X), is a thick purple silk covered with large vellow eagles, each of which is diapered with rosettes; in Plate XI is a similar eagle, green ring in mouth, with suspended pearl. This suggests the "blattyn byzantea cum rosis et aquillis" mentioned in ancient inventories, as well as the one the Empress Galla Placidia is said to have placed on the body of Saint Germain, who died at Ravenna in 448 A. D. It also suggests the cope now at Metz, made from the mantle of Charlemagne, which displays four large eagles with wide-spread wings, and has tiny griffins, crescents and serpentine scrolls to fill up the vacant spaces and adorn the geometrical wings and tails.

COPTIC PATTERNS

While a large proportion of the numerous so-called Coptic stuffs woven in Egypt from the third to the eighth century for use as dress trimmings, and preserved uninjured and unfaded in the graves and tombs, were made of linen, or wool and linen, the weaving of silk was also an important Coptic industry as shown by the collection in the Kaiser Friedrich Museum at Berlin, and by Strzygowski's able book on the subject. All the Coptic fabrics, of whatever material, suggest their Greek-Egyptian ancestry, as well as the successive influences of Roman, Byzantine Roman and Mohammedan dominion. Strzygowski has also utilized many of those that in style are a degenerate form of Byzantine, to demonstrate the influence exercised by China on the textile art of Egypt and Western Asia.

MOHAMMEDAN PATTERNS

In the first quarter of the seventh century, in the year 622 A. D. to be exact, occurred an event that was to transform the world—the

DECORATIVE TEXTILES

Hegira (flight) of Mohammed from Mecca to Medina. Before a century had passed, the religion thus established by an humble Arabian priest had assimilated to itself millions of followers, and with sword and Koran had brought Syria and Persia and Egypt and the rest of Byzantine Africa, and most of Spain, beneath the rule of Mohammedan Caliphs, faithful to Allah (God) and to his prophet Mohammed. Even across the Pyrenees, from Spain into France, swept the enthusiastic conquerors, but were finally checked by Charles Martel, the grandfather of Charlemagne, at the battle of Tours in the year 732.

Henceforth the Mediterranean world was separated into three divisions: the Byzantine Empire with capital at Constantinople, the Christians of Italy and Western Europe, the Mohammedans. At the end of the eighth century Charlemagne temporarily united the Christians of Western Europe into an empire from the fragments of which the Holy Roman Empire later was assembled, and the kingdom of France created. In the twelfth and thirteenth centuries these western Christians were moved with a religious fervor which resembled that of the early followers of Mohammed, and went on crusades to Jerusalem and other parts of the East. For a time the Christians beat back the Mohammedans, but as they came to know them better they hated them less, and the ambition to extirpate them because of their heresies was less keen.

In the middle of the fifteenth century, the Turks once more pushed forward the standards of Mohammed and captured Constantinople, that in spite of the attacks of barbarians and Saracens (Mohammedans) and the treachery in the thirteenth century of the Crusaders from the West had remained for over a thousand years the capital of the world's art and civilisation.

However, it is only fair to state that among the Mohammedans, art and science had flourished marvellously. Compared with them, the Crusaders were uncouth and illiterate. The Mohammedans absorbed much of the ancient Greek civilisation of Egypt and Syria, and developed it marvellously along lines that created a general Mohammedan style, as well as distinct divisions of the Mohammedan style, like Moorish (Hispano-Moresque) and Persian. Vitally significant was the influence of Mohammedan upon Byzantine art, as well as of Byzantine upon Mohammedan. But vastly more significant and vastly more important was the influence of both upon the art of

Western Europe. Indeed, much of what is often attributed to the native artistic genius of the descendants of the Franks and Lombards and Saxons and Goths and Burgundians, is merely the result of borrowing from Byzantine and Mohammedan sources, with modifications often due to imperfect understanding and inferior skill.

From the decoration of their damasks and brocades, the Mohammedans naturally enough banished the Christian subjects and symbols developed in Asia Minor and Syria and Egypt under Byzantine dominion. But the basic frame-work and arrangement of circular bands and geometrical lines was retained, because it harmonised with the Arabic character. Distinctive of the Mohammedans are the inscriptions in Arabic letters, sounding the praises of him for whom the cloth was woven, or repeating some verse from the Koran, or the names of the Prophet and other Mohammedan princes. Especially popular in the part of the Mohammedan world of which Bagdad was the capital, were the war and hunting scenes borrowed from Sassanid compositions. The fabrics of Cairo, the capital of Mohammedan Egypt, showed much less Persian and more Coptic influence, and the decorative floral forms were stiffer and much less naturalistic.

MOHAMMEDAN SPAIN

An especially interesting silk in the Royal Academy of History at Madrid shows medallions containing the seated figures of a king and a queen, upon a ground adorned with birds, lions and other animals. It bears a Cufic inscription, with the name of Abdallah Hicham, who was Caliph in the year 976. A splendid example in the Morgan collection shows sphinxes facing each other on either side of a tree of life. Plate XII is an interesting thirteenth century damask with "doublet" pattern inside of wheels. Characteristic of the later Hispano-Moresque damasks and brocades and silk tapestries is the predilection for line effects and geometrical motifs. Horizontal bands of ornament often alternate with bands of inscriptions. Small repeat patterns suggestive of tile work are common.

An indication of the importance of the ancient Mohammedan looms is the fact that our word muslin is derived from the name of the city of Mosul, damask from Damascus, and gauze from Gaza (Plate H of Chapter IV).

Credit for illustrations: Plate I, P. W. French & Co.; Plates IX, XIII, XIV, XV, XVI, the Pennsylvania Museum.

CHAPTER III

DAMASKS, BROCADES AND VELVETS PART III

THE DEVELOPMENT OF PATTERNS

In the thirteenth century Chinese and Central Asiatic influences once again made themselves felt strongly in Mediterranean textiles. Jenghiz Khan, at the head of innumerable hordes of Mongols and Turks, traversed a large part of Asia with fire and sword and laid the foundations of a mighty empire. He conquered northern China, Turkestan and Persia, part of India and part of Russia. His son extended the conquests in the East as well as in the West, where he ravaged pitilessly Russia, Poland and Hungary. But their famous successor, Kublai Khan, invited peace instead of war, and made his capital at Pekin, where he was visited by ambassadors and travellers from all parts of the world, among them the Italian, Marco Polo, whose book describing his residence there, and his trips back and forth, is a fascinating narrative as well as a mine of valuable information.

A natural result of this opening-up of China to the West was the profound modification of Mediterranean textiles due to Chinese influence. As this influence was most strongly felt in Persia, and reached the West through Persia, the modification was more in the direction of Persian-Chinese than of pure Chinese. The circular bands and geometrical compartments and figure groups disappear, and are succeeded in the fourteenth century by a wealth of flowers and leaf motifs, at first stiff and highly conventionalised, but later naturalistic though arranged in repeats and without the freedom and freshness of design that flourished in China. Parallel with this and doubtless influenced by it, was the development of verdure ornament in French and Flemish tapestries, from the crude rectilinear shapes of the thirteenth and fourteenth centuries to the varied and vivid mille fleurs of the late fifteenth and early sixteenth. Indeed, the designs of many



Plate I TEALIAN GOTHIC COPE. Venetian velvet of the last quarter of the fifteenth century, with Orphrey embroidered in gold



Plate II Plate III
FOURTEENTH CENTURY ITALIAN PATTERNS





Plate IV FOURTEENTH CENTURY ITALIAN PATTERNS

of the animal rugs woven in Persia in the sixteenth century are merely another version of the *mille fleur* tapestries of the West, while tapestries like the "Lady with the Unicorn," set at the Cluny Museum, are simply alive with Saracenic suggestion. Important to note at this point are the many Chinese "cloud bands" and ribbon knots, and other Chinese motifs that appear on Persian rugs and silks from the fourteenth to the sixteenth century, easily recognisable although obviously reproduced by weavers ignorant of their meaning.

ANIMAL PATTERNS

It has long been the fashion to attribute the lack of animal and human life seen in modern Oriental rugs and other fabrics to the prohibitions of the Mohammedan religion. Mohammed, in his eagerness to suppress the worship of idols, repeatedly forbade the representation of life. But the expounders of the Koran did not find it difficult to evade the law, and while preserving the ban on naturalistic animal forms, permitted conventionalised fanciful or fantastic treatments. Moreover, they did not hesitate to have their Christian slaves and subjects reproduce unorthodox designs, reasoning that the Christian weaver and not the Mohammedan wearer, might be expected to receive the punishment. Also the prohibition against the weaving of silk was held not to extend to silk stuffs with linen or cotton warp. In other words, the fidelity to the sacred law varied in different Mohammedan countries, being strictest in Moorish Spain.

The same condition prevailed in Christian countries. Certainly the making of images and pictures of persons and animals is prohibited definitely enough in the Jewish and Christian *Ten Commandments*, yet sculpture and painting do not on that account suffer greatly in Christian countries, although animal forms have been banished from most European woven fabrics (except tapestries). Protestant churches admit pictures into stained glass only, and that grudgingly and usually with little art.

Undoubtedly the religious prohibition had an important influence not only in the *iconoclastic* movements of the Christian Empire of the East and the West (the Byzantine Empire and that of Charlemagne) in the eighth century, but also in the Mohammedan world at various periods. Moreover, the religious influence against woven pictures in silk was powerfully supplemented by other influences—by inability to weave figures that were both representative and decorative; by the



Plate VI Cope in Persian sixteenth century brocaded velvet, in the Metropolitan Museum of Art

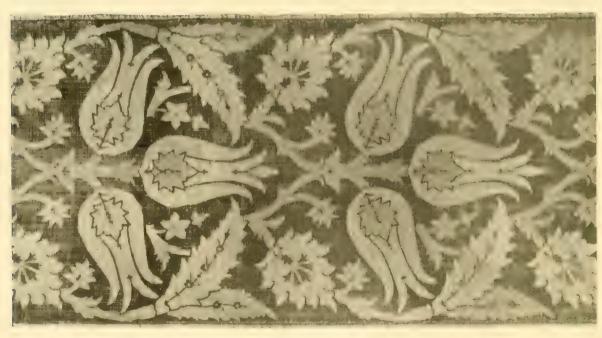


Plate VII Ancient Persian velvet in the Metropolitan Museum of Art

introduction of a wealth of motifs from the East, which, as they travelled West, lost their meaning and became formal small repeat patterns instead of large, living ones; last, and most important of all, by mechanical improvements in the loom which made it easier to produce pattern and harder to produce design.

MOHAMMEDAN PERSIAN PATTERNS

Noteworthy are the damasks and brocades and velvets of Mohammedan Persia (Plate VIII) in the fifteenth and sixteenth centuries, alive with personages and animals in the midst of luxuriant flora. Especial fame attaches itself to the city of Kashan that had been founded by the wife of Caliph Harun-al-Raschid, Charlemagne's heroic Saracen contemporary. The favorite flowers were the jacinth, the tulip, the eglantine, the pink, and the peach blossom. The manner of their expression and composition was a marvel of decorative art. Long stems describe graceful curves, and the fabrics seem like rich gardens of paradise in which man and the animals appear newly created after centuries of stiff and conventionalised representation. In these wonderful fabrics, many of them rich with gold, are suggested the fascinating scenes of the Arabian Nights. Here we see the poet reciting his verses to his sweetheart; or some Persian Orpheus searching for her whom he has lost among the trees; or the chief surrounded by his cavaliers pursuing the lion, or launching the falcon: all with an elegant grace and refined naturalism that far excelled the most ambitious attempts of Sassanid predecessors. From Persia, this wonderful activity spread to the West, to Asia Minor and Syria under the dominion of the Turks, and thence to Italy.

SICILIAN PATTERNS

Although Sicily came under the control of the Normans at the end of the eleventh century, the Mohammedans preserved their religion, their customs and costumes and industries. Especially were they encouraged to continue to practice the art of weaving. Roger II, the Norman king of Sicily, in the second quarter of the twelfth century, is also said to have brought back from his victorious expedition to Greece (then part of the Byzantine Empire), Corinthian, Theban and Athenian weavers to instruct his own subjects in growing as well as in weaving silks, and to swell the fame of his tiraz at Palermo (tiraz being the name used to designate the weaving factory which most

DECORATIVE TEXTILES

Mohammedan princes supported at their courts). Soon Sicily began to weave silks for the Crusaders who acquired in Asia a taste for Oriental luxury. From Palermo the ships of the Venetians, which at this period almost monopolised the trade of the Mediterranean, bore away the famous Sicilian silks and distributed them throughout Italy, Austria, Germany and France.

Most famous of the Sicilian silks are those preserved in the Imperial Treasury at Vienna, once the coronation vestments of the Norman kings of Sicily, then for six centuries the official robes of the head of the Holy Roman Empire, brought to Germany in 1195 by the Emperor, Henry VI, who married Constance, the heiress of the Two Sicilies (Sicily and Naples). The mantle that is divided into two quadrants by a tree of life, on each side of which is a lion that has downed a camel and is about to devour him, has the design not woven but embroidered, and bears the inscription, "Part of what was worked in the royal factory, in the capital of Sicily, in the year of the Hegira 528" (A. D. 1133, at the beginning of the reign of Roger II). The richness and beauty of the mantle are indescribable. The alb of white silk taffeta and the purple dalmatic have also been preserved.

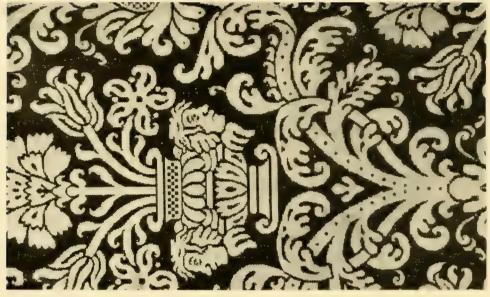
The designs of the Sicilian figured silks were rich and full of symbolism, inheriting from Byzantine as well as from Saracen sources. A lion seizing a duck that an eagle has pursued, suggests that the owner of the garment was valiant enough to snatch his booty from the eagle, the eagle signifying good fortune and riches; the lion, power and government. Another silk shows a woman regarding a hare, and holding in leash a hound and a spotted cheetah, while diagonally below is another woman with an eagle that holds a doe fast in its claws. Another Sicilian design often reproduced for modern church vestments shows two facing stags that look heavenward into the rays of the sun upon which sit two eagles, all framed in an hexagonal band of tiny hexagons like those that modern oilcloth has borrowed from tiles. Another silk shows a lion and a hoopoe between two bands of arabesque ornament that contain the inscription in Arabic, "The Wise Sultan," which is particularly appropriate because the hoopoe is a bird that symbolises wisdom. Another design shows crowns alternating with large pin-wheel stars, and beneath each crown a pigeon above a twisted ribbon is conspicuously placed bearing an inscription in Arabic.

LUCCA, VENICE AND GENOA

In the thirteenth century the cities of northern Italy began to compete with Sicily, first among them Lucca, whose products were shipped to Paris, Bruges and London. Soon the example of Lucca was followed in Pisa, Siena, Milan, Florence, Bologna, Venice and Genoa. As many of the weavers were Sicilians who fled from Palermo to seek refuge from the persecutions that succeeded the so-called Sicilian Vespers in 1282, when all the French in the island were massacred, the Italian patterns were at first quite as Oriental as the Sicilian. But before long the Saracenic designs and inscriptions began to lose their meaning and to be copied merely as ornament without regard to their special significance (Plates II to V). With the borrowed forms were mingled Italian creations—cartouches, escutcheons, castles, fences and weird fantastic shapes. Gradually each city began to develop along individual lines, and became famous for some specialty. Lucca wove religious subjects, scenes from the New Testament, with winged cherubs and angels carrying the instruments of the Passion, and tabernacles and reliquaries flanked by angels and cherubs. The ribbon ornament, employed by the Chinese to symbolise Heaven, was used at Lucca with the same significance. Siena also wove New Testament subjects, usually to take the place of the orphrey embroideries on church vestments, and with light designs on a dark ground, commonly red.

Venice is said to have learned the art from families that fled from Lucca during the political troubles there at the beginning of the fourteenth century. But we have literary evidence that the art of weaving cloths of silk and gold had already been practised in Venice for over half a century, which was, of course, to be expected on account of the direct commercial relations of Venice with Palermo and with Constantinople. However, it is for velvets that Venice was especially noted (Plate I), in the fourteenth century reproducing Persian designs so faithfully, with the same palmette motifs and scrolls of tulips, pinks, eglantines and jacinths, but with perhaps a little less freedom and inspiration, that it is sometimes difficult to tell them from the original. The Venetians also created a special kind of velvet in which the designs rose in slight relief above the ground, both in cut velvet. At the end of the fourteenth century, designs of Gothic ironwork and ornament derived from stained glass windows began to appear in satin upon cut velvet ground.

Plate IX. Fifteenth century Venetian brocaded velvet, pomegranate pattern, in the Metropolitan Museum of Art





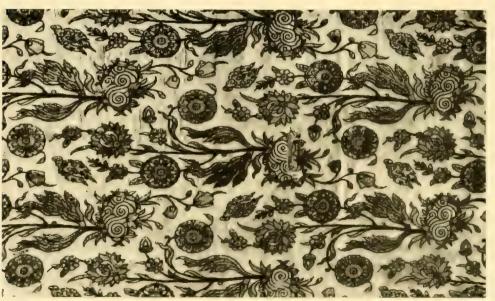


Plate VIII Persian velvet, satin ground, sixteenth century

Plate N Italian Remissance damask

Genoa also reproduced Oriental designs, and its specialty during the fourteenth and fifteenth centuries was *ciselé velvet*, which is the combination of cut with uncut. The designs were conparatively small and dark upon a satin ground, at first slender trees with birds perched in the branches, animals rampant and crouching and walking. The compositions were no longer symmetrical, and the uncut part was often different in colour from the cut part.

GOTHIC POMEGRANATES

During the fourteenth century the slender and graceful tendrils borrowed from the Orient were converted into knotted branches that formed a pointed oval, inside of which was placed a group of animals. From the lower angle began to sprout the pomegranate (the apple of love) that was to be the characteristic ornament of the fifteenth century. At first it was small and subordinated to the animals, but it ended by crowding out the animals altogether, and being transformed into the imposing pattern that dominated the fabrics of the fifteenth century and the first quarter of the sixteenth. It is composed of a central fruit seen from the side, and placed in a cluster of leaves around which grow flowers and leaves surrounded by various ornament. The pomegranate in the centre symbolises Christian love; the surrounding blossoms and fruit, that love by the aid of faith brings forth the fruit of everlasting life.

In the last half of the fifteenth century a new style of pomegranate pattern became popular, particularly at the Burgundian Court, to which Flanders was then subject, and which set the Gothic decorative styles that were followed by France, Germany and England, and to some extent by Italian weavers. The pomegranates grew from a broad, wavy, decorated band, each on a wavy stem with blossoms and leaves (Plate I). During the fifteenth century Italian weavers began to emigrate to France, Flanders and Switzerland, and by the beginning of the sixteenth the industry was well established to the north of the Alps.

RENAISSANCE VASES

In the sixteenth century the vase replaced the pomegranate as the characteristic pattern. At first it was a very modest vase, out of which the pomegranate grew, but it ended by displacing the pomegranate altogether, just as the pomegranate a century before had



Plate XI Italian Baroque damask in silk and linen



Plate XIII | Louis XIII damask, modern reproduction



Plate XII German Renaissance damask, gold taffeta figures on red satin ground



Plate XIV Louis XIV damask, modern reproduction



Plate XV Louis XIV damask, modern reproduction



Plate XVII Louis XV brocade, modern reproduction



Plate XVI Louis XV damask, modern reproduction



Plate XVIII - Italian Rococo brocade, modern reproduction



Plate XIX—Louis XVI velvet, modern reproduction

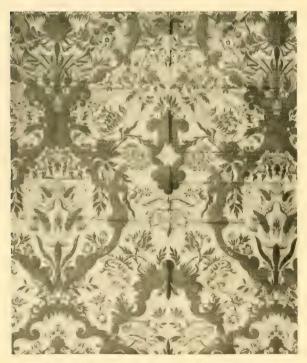


Plate XXI Italian lampas in five colours, modern reproduction



Plate XX—Louis XVI brocade, rich and elaborate in many colours, modern reproduction

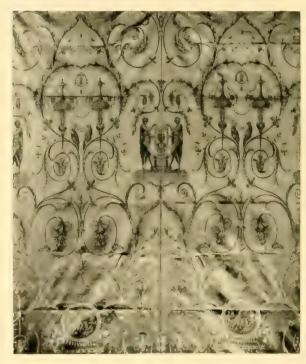


Plate XXII—Typical French directoire lampas in two tones of grey on blue ground, modern reproduction

displaced the animals. Gradually the vase assumed elegant and elaborate Renaissance forms from which grew blossoms and flowers as they previously did from the pomegranate (Plate X). Patterns tend to become smaller (Plate XIV of Chapter II), as the long Gothic robes are replaced by the shorter garments of the Renaissance. Instead of vases we sometimes find palmettes treated in similar fashion, or small clusters of flowers loosely framed with blossoms and leaves. Colours become less brilliant and, like the patterns, less assertive. The grotesque ornament of ancient Rome is copied and used as a source for motifs and method. Architectural forms and frames become Renaissance (Plate I of Chapter XVI) instead of Gothic or Oriental in style, and the vertical effects of Gothic are supplanted by the horizontal (Plate XII; also Plate XIV of Chapter II) and other treatments characteristic of Classic conception and practice.

THE BAROQUE SEVENTEENTH CENTURY

During the period of transition from the Renaissance of the sixteenth century to the Baroque of the seventeenth (Plates XI, XII, XIII), the framework of the motifs began to disappear. The symmetrical form in the centre was displaced by an unsymmetrical branch with blossoms and leaves, and finally developed into the typical seventeenth century pattern of detached branches, in vertical series leaning alternately to right and left. There was great variety in the manner of drawing and in the interpretation of botanical details as well as in the size of branches, which were from two to ten inches long. At the same time the vase patterns of the sixteenth century, but often without frames, were repeated throughout the seventeenth century, with the heavier shading and stronger contrasts that are characteristic of Baroque (Plates XIV, XV). Especially rich and luxurious were the velvets of the period of Louis XIII.

During this period were eliminated the Gothic and early Renaissance tiny repeats on the one hand, and the splendid picture effects on the other, and motifs were employed that were inferior to the latter in interest and to the former in decorative value. It was the exaggeration of parts at the expense of the whole, and produced patterns that dazzle with their heavy boldness, even though they weary with their loudness. As in architecture, painting and tapestries, so in damasks, brocades and velvets—Baroque was a sculptural style.

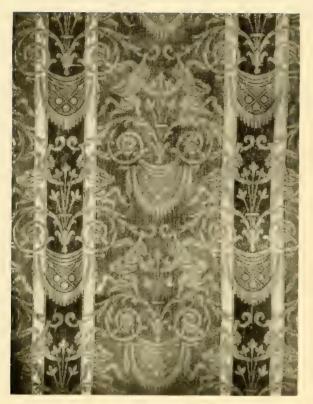






Plate XXIV

Modern American figured velvets with changeable grounds



Plate XXV - Italian brocaded damask, seventeenth century



Plate XXVI Modern American figured velvet

Patterns did not please unless they rose strongly in relief against the ground. The line and colour beauties of Oriental and Gothic and Renaissance were sacrificed in order to produce the illusion of "in the round." In the attempt to express on flat surfaces the combination of line, colour and relief, confusion often resulted. Especially bombastic is the Baroque of Italy, Flanders and France, of the first half of the seventeenth century (Plate I of Chapter II). That style at its best, and as interpreted by a genius, is seen in the paintings of Rubens.

LOUIS XIV

But the style of the last half of the seventeenth century—that is to say the style of Louis XIV (Plates XIV, XV), which was extensively copied and imitated in the other countries (Plate XI), though not always skilfully and usually with local accent and tone—was Baroque pruned of its excrescences and brought within the reign of law. Under Charles Lebrun the decorative arts of France were co-ordinated and France instead of Italy became the decorative centre of the world, and the style of Louis XIV became supreme. Immediately the interpretation of flora became much more realistic and the modelling of lights and shadows more just. The antithesis of Gothic and Oriental was reached, and instead of the strong line effects of the fourteenth and fifteenth centuries, and the flat strap work of Renaissance, we have ponderous and rigidly balanced details, with design marked and accentuated by contrast of tone. Earlier ages had employed tiny conventional forms diapered over the surface of velvets and brocades, side by side of the larger patterns. Where the style of Louis XIII had been oppressive, that of Louis XIV was *impressive*. The perfection of its execution and the justness of its proportions compel admiration, even though one is not in sympathy with "heavy pedal" effects. The style of Louis XIV is a "finished style," complete in all details, with a wealth of damasks, brocades and velvets, to match its tapestries, paintings, furniture and architecture. It is a Classic style, but Classic made thoroughly French.

LOUIS XV AND CHINESE

The style of Louis XV (Plates XVI, XVII, XVIII) is a reaction from Classic in the direction of Romantic, from grandeur towards grace, from formalism towards naturalism, from heroic to

DECORATIVE TEXTILES

human. It is above all a feminine style, and a style vivid with life and movement (Plates X, XI of Chapter XV). The tendency was already perceptible fifteen years before the death of Louis XIV, in 1715, after a reign of seventy-two years. Already lace motifs and Chinese motifs were beginning to introduce themselves into brocades. Already Rococo motifs were beginning to disturb the balance of designs with their naturalistic twists. Let us note the derivation of the term Rococo. It is evolved from the first syllables of rocaille and coquille, and hence literally means "rock-and-shell," but with long use the meaning of Rococo has broadened from "rock and shell" naturalism to include naturalistic motifs borrowed from trees and plants and other objects, especially when the treatment is unsymmetrical. The tapestry chair back of Plate IX in Chapter XVI is a complete definition of Rococo.

The importance of Chinese influence on the decorative art of the eighteenth century is usually underestimated (Plates X, XV, XVII, XVIII, XXXVI of Chapter VI; Plate VIII of Chapter XVI).

An important revival of commerce between France and China was one result of an embassy sent by Louis XV bearing Gobelin tapestries and other splendid gifts. In return the Chinese Emperor sent back wonderful pieces of porcelain and rich brocades. To these apparently is due the remarkable development of colour perception in Europe in the reign of Louis XV.

Brilliant but without delicacy even when mellowed by gold, had been the colours of Gothic and Renaissance; not until Europeans had a chance to study the wonderful wealth of hues and tones in Chinese silks and porcelains were they able to produce the charm that is the prime characteristic of the French eighteenth century, that is to say of the styles of Louis XV and Louis XVI.

The style of Louis XV was, above all, an interesting style. It was full of variety. Chinese vases and dragons, quaint Chinese land-scapes without perspective, pigtailed Chinamen in swings and boats, Chinese pagodas and bridges and gardens and parasols, combined with motifs copied directly from nature to relieve the ennui of an age more anxious for thrills and new sensations than for glory and great accomplishment. Delightful beyond words is the capricious introduction into textile patterns of Rococo architectural fragments, together with cascades and rocks and trees fancifully treated. Shadows are no longer accentuated, as under Louis XIV, but light and shade

and colour are rendered with all the delicate gradations that nature has given in such profusion to flowers and fruit.

LOUIS XVI

While the style of Louis XV was a "back to nature" style, that of Louis XVI (Plates XIX, XX) was a "back to classie" style. But it was classic of an entirely different character from Louis XIV. It retained most of the grace and more than the delicacy of Louis XV (Plate XV of Chapter II). It was a style based not upon the public buildings of ancient Rome, like Renaissance and Baroque, but upon Roman domestic architecture and decorations, especially those of Pompeii and Herculaneum, that became available through excavation about the middle of the eighteenth century. Many books were published illustrating Pompeiian form and ornament, and the popular phrase in decorative circles was "in the antique style."

The style of Louis XVI is above all a symmetrical style and a gentle style. From it is banished all violence of line, shape and hue. Especially soothing are the colours with their subdued greys and lack of brilliancy. The decorative motifs are small, usually smaller than nature. The variety of tiny-figured brochés and brocades and velvets originated was extraordinary. The basis of arrangement is the vertical straight line, carrying tiny roses and other florals, baskets of flowers, and vases (Plate XIII of Chapter II), medallions, musical and gardening instruments, and especially ribbons gracefully twisted and knotted. Stripes (Plates XIV and XV of Chapter II) and oval shapes of various kinds are common, and parallelism of motifs is frequent.

DIRECTOIRE AND EMPIRE

While the Empire style is also Classic, it is classicism of an entirely different kind. It was a reaction from the delicate and the graceful to the grand and the bombastic. It possesses the kind of showy magnificence by which the multitude is impressed, and for that reason its influence was dominant long after Napoleon met his Waterloo. It is the least French of all the French styles, and copied classic ornament boldly and baldly instead of adapting it to modern conditions. It apes the severity of republican Rome and the grandiosity of imperial Rome. It is essentially a warlike style. Flaming torches, eagles, stars, triumphal wreaths and mythological emblems like the





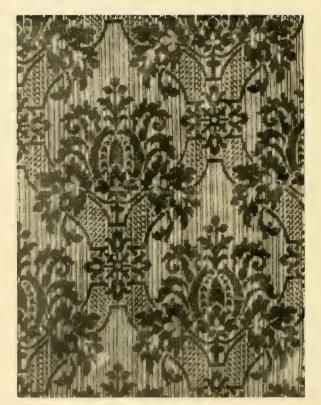


Plate XXVIII

MODERN AMERICAN FIGURED VELVETS WITH CHANGEABLE GROUNDS.



Plate XXIX

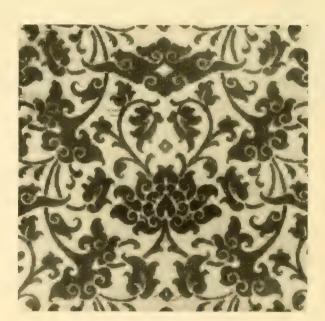


Plate XXX

MODERN AMERICAN FIGURED VELVETS.



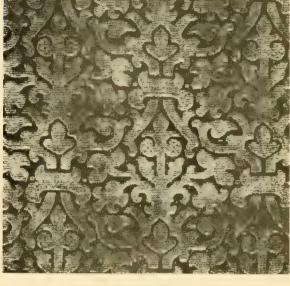


Plate XXXI

Plate XXXII

MODERN AMERICAN FIGURED VELVETS

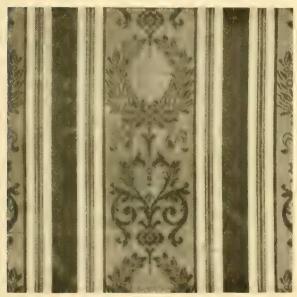






Plate XXXIV



Plate XXXV



Plate XXXVI



Plate XXXVII



Plate XXXVIII

UPHOLSTERED FURNITURE IN THE MORGAN COLLECTION AT THE METROPOLITAN MUSEUM
On the left, tapestry; on the right, above, lampas; below, velvet

helmet of Minerva and the thunderbolt of Jupiter are repeated over and over. Other common motifs are Greek vases, anthemia, harps, cornucopias, swans, lions, cupids, caryatids, rosettes. The small-figured fabrics are hard and monotonous, with tiny detached motifs geometrically arranged. Shiny fabrics were especially admired—large-figured damasks and sombre velvets with relief effects almost Baroque in their character.

The possibilities of the newly invented Jacquard attachments were perverted. Apparently the overcoming of textile difficulties was more sought than the production of beauty.

Colour schemes became heavy and sombre. The exquisite pastels of Louis XVI were supplanted by deep greens, reds, blues, browns and purples.

In other words, the Empire period was as much distinguished for lack of taste as the French periods immediately preceding for the possession of taste. The period of transition between Louis XVI and Empire is Directoire (Plate XX; also Plate XV of Chapter XVII).

THE NINETEENTH CENTURY

This lack of taste continued to overshadow Europe during the whole of the nineteenth century. The poverty of individuals and of nations caused by the Napoleonic wars turned the efforts of men away from beauty to necessity, and the extraordinary material progress and accumulation of wealth due to the development of steam power and railroads kept the attention of the world concentrated on quantity rather than quality. The various Gothic, Queen Anne, Empire, Louis XIV and Louis XV revivals did little to raise the general standard of appreciation. Even the pre-Raphaelites and William Morris found it hard to make themselves understood. But at last, with the twentieth century, we began once more completely to assimilate the past and once more to understand what styles really are and what it means to create a new style. Already our damasks, brocades and velvets show wonderful ability in the reproduction of the most beautiful historic textiles, and enough that is new has been accomplished to demonstrate that a new style period is about to begin. [Note: For other illustrations of period designs, see especially Chapters XVII and XVIII.]

Credit for illustrations: Plate I, P. W. French & Co.; Plates II to X and XXXV to XXXVIII, the Metropolitan Museum of Art; Plates XIII to XXII, F. Schumacher & Co.; Plates XXIII, XXIV, XXVII, XXVIII, W. E. Rosenthal.

CHAPTER IV

FUNDAMENTAL AND MODERN WEAVES

Nothing is more fascinating or more difficult than to analyse weaves from the decorative and the use point of view. Even designers who can accurately plot the fabrics on design paper, or punch them on jacquard cards, hesitate and stammer when asked to put their technical knowledge into popular form, and to transmute their recondite formulas into phrases that will help the man behind the counter as well as the woman in front of it. Part of the difficulty is due to poverty of terminology. Words like tapestry, as explained in Chapter XII, are employed in meanings that vary according to the time and the place, and the intent of the seller.

A word that suffers almost as much as tapestry from catholicity of meaning is *plain*. A plain fabric may be one of plain weave in the sense that there is complete alternation of warps and wefts, or it may be a fabric of twill or satin weave in solid color, or it may designate a woven fabric, even one that has been figured on the loom, by contrast with one that has been printed. In this chapter it will be used in the first sense only.

The fundamental weaves are *plain*, *twill* and *satin*. Given an understanding of these, and one has already gone far towards the comprehension of complicated double-cloth and jacquard effects. Without them, one is perplexed and bewildered by comparatively simple webs like those of taffeta, rep and denim.

At this point it may be well to emphasise the fact that in weaving, the warp threads are mounted on rollers and *stretched* the long way of the loom, whilst the weft threads (also called *filling* or *tram*) are *thrown* in the shuttle *across* the loom from right to left, and back again; also that a prerequisite to weaving is a *loom*, and that without a loom there can be no weaving; also, that a loom in its simplest form is merely a frame to hold the warp threads taut and parallel and



Plate I EIGHTEENTH CENTURY VENETIAN CARVED AND PAINTED CHAIR, UPHOLSTERED IN STRIPED SATIN

DECORATIVE TEXTILES

enable the warps to be moved, some up and some down, so as to leave the opening or *shed* through which the bobbin or shuttle passes.

In plain weave there is complete alternation of warps and wefts; that is to say on the way out, across the loom from right to left, the shed through which the bobbin passes has the odd threads below, and the even threads above; whilst the shed through which the bobbin passes on the way back has the even threads below and the odd threads above. This shifting of sheds in plain weave is produced most simply on the high-warp tapestry loom, where the cross-stave holds the warps open in the first position, except when the lisses or looped strings attached to the odd warps are pulled by the weaver's left hand so as to bring the warps into the second position. On the low-warp tapestry loom, the odd warps are threaded through a harness that is moved up and down by a treadle which is worked by the weaver's left foot, whilst his right foot handles the even warps in the same way. On all real tapestry looms, the weft is passed on the bobbin, and there is no shuttle. The shuttle to carry the bobbin was introduced when the wefts began to be thrown or knocked the full width of the warp, instead of being passed only as far as the particular colour went.

The simplest form of plain weave is where warps and wefts are of the same size and the same distance apart, so that they show equally on the surface. An illustration of this is the cotton étamine, pictured on Plate A 1, where the fact that the weave is comparatively open with the threads far apart makes it easy to analyse the structure.

Other examples of textiles of simple, plain weave are the burlap on Plate A 4, and the crash on Plate A 3, both in jute with very rough and irregular weft threads that give interesting variety to the surface. An even clearer illustration of the complete alternation of plain weave is the monk's cloth in Plate B 1, where both warp and weft are worked in pairs. Much less obvious is the plain weave of the jaspé cloth on Plate A 2, where the coarse blue wefts are buried beneath the fine brown warps, but shine through enough to play an important part in the jaspé effect, that is secured by the use of contrasting warps, some light brown, others dark brown. With Plate B 3 we come to a cotton rep, the fine warps of which are so numerous as completely to cover the coarse wefts that make their presence obvious in the form of ribs. In Plate B 4 the wefts are so uneven that the result is a shikii rep, the vivacity of the surface of which is heightened by the fact that the dark red wefts are not completely covered,

and shine through the light red warps in spots of colour. In Plate B 2 the fine warps are assembled in groups of four over alternating pairs of wefts so that a honeycomb or basket-weave warp-covered surface is produced. Reps that have coarse wefts covered with fine warps are called warp reps; those that have coarse warps covered with fine wefts, weft reps. But just as the fine-thread effects on a bobbin loom (real-tapestry, high-warp or low-warp) are produced with the weft, so on the shuttle loom the fine-thread effects tend to be produced with the warp; and whilst real tapestries are weft reps, shuttle reps and shuttle ribbed tapestries are usually warp reps. Warp reps can, of course, be figured in stripes by grouping the warps in different colours, but plain weaves like étamine, where wefts show equally with warps, or where the wefts show through between the warps, are merely spotted or toned when warps of different colours are used.

TWILL AND SATIN WEAVES

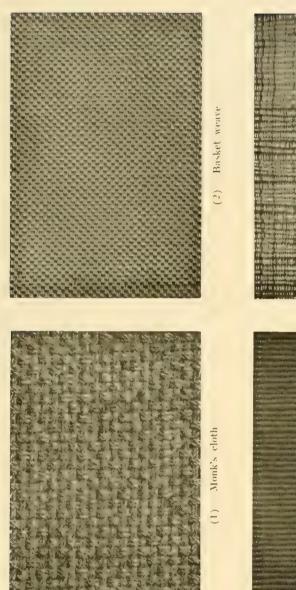
With Plate C we come to twill and satin weaves where the loss of flexibility and control over the pattern that results from the substitution of shuttle for bobbin is made up for by increased manipulation of the warps. In plain weave, the warps divide into two systems, one of the odd warps, the other of the even warps. In twill weave, the warp is divided into at least three systems; in satin weave, into at least five systems. The result is that whilst the surface of plain weaves consists of horizontal lines intersecting vertical ones, as in étamine or burlap; or of coarse horizontal ribs entirely covered with fine warps, as in rep; or of fine and often hardly perceptible horizontal ribs only partly covered with fine warps, as in silk taffeta and silk grosgrain and the jaspé cloth illustrated on Plate A 2, the surface of twills shows diagonal ribs, as in Plate C 1, and the surface of satins, fine warp threads only that lie smooth and flat with a characteristic gloss or shininess produced by their even parallelism, as in Plate C 3.

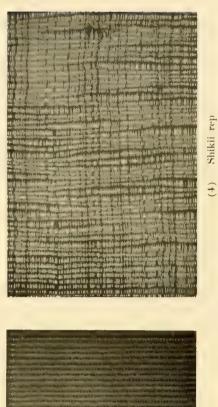
A characteristic one-two twill is the denim in Plate C 1. In weaving it, the warps are divided into three systems, A, B and C—the A system including warps 1, 4, 7, etc.; the B system warps 2, 5, 8, etc.; the C system warps 3, 6, 9, etc. For the first passage of the shuttle to the left, the A warps are depressed and the B and C warps elevated, so that the weft covers the A warps but is covered by the B and C warps. For the return of the shuttle to the right, the B threads are depressed and the C and A threads elevated. For the

(1) Burlap

Plate A PLMIN WEAVES

(3) Crash





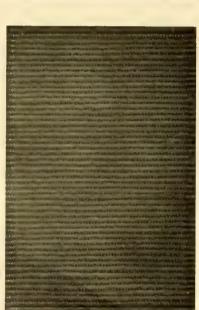


Plate B—PLAIN WEAVES

Cotton rep

(3)

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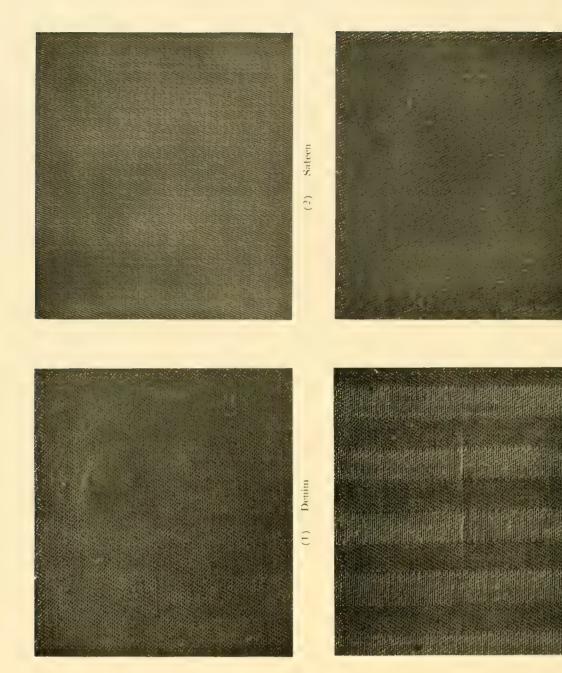


Plate C TWILL AND SATIN WEAVES

(3) Satin Derby

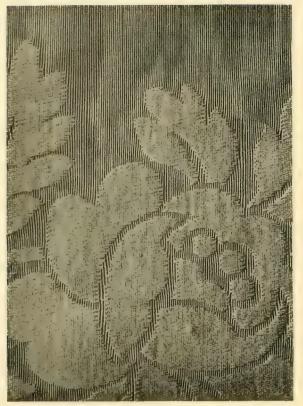
(1) Striped denim

next passage of the shuttle to the left, the C threads are depressed and the B and A threads elevated, and so on to the end of the web. The result is, of course, that twice as many warps as wefts remain on the surface and make their presence apparent in the form of diagonal ribs. When the wefts are comparatively coarse, as in the case of Plate C 1, they lie comparatively flat and the warp ribs on the face of the fabric are high and sharp, whilst the back of the fabric consists of coarse wefts only partly covered with fine warps, the effect resembling that of plain weave, as in Plate A 2. Of course, a twill may also be under one over three (a one-three twill), or under two over two (a two-two twill), etc. When warps and wefts are of the same fineness, the fabric can be figured in stripes by letting the warp predominate in some (for instance, a one-two twill), and the weft in others (a two-one twill); or in blocks or checks similarly. Then if the warps are red and the wefts green, the fabric will be chequered red and green on the face, as in some Scotch plaids, and reversed on the back. When the wefts are coarse as compared with the warps, as in Plate C 3, the diagonal effect is minimised in the weft stripes by the horizontal effect of the wefts. In Plate C 4, which is a striped denim, the warps are dark green and the wefts light green, so that we have dark green warp stripes alternating with light green weft stripes. Plate C 2 is a sateen, a twill satin with diagonally ribbed but sating surface, owing to the large predominance of weft over warp. It is a four-one twill and the wefts are coarser and smoother than the warps. On Plate C 3 we have a satin Derby (the trade name for a cotton or mercerised satin) which is a one-four twill, the surface consisting of fine mercerised warps, whilst the back, on account of the coarseness of the wefts, resembles plain weave, the horizontal effect of the wefts minimising the diagonal effect of the sparse warps.

DAMASK AND BROCADE WEAVES

Table damasks are the simplest of all damasks to understand because the contrasts of texture, that is to say, of warp surfaces with weft surfaces, are easy to see.

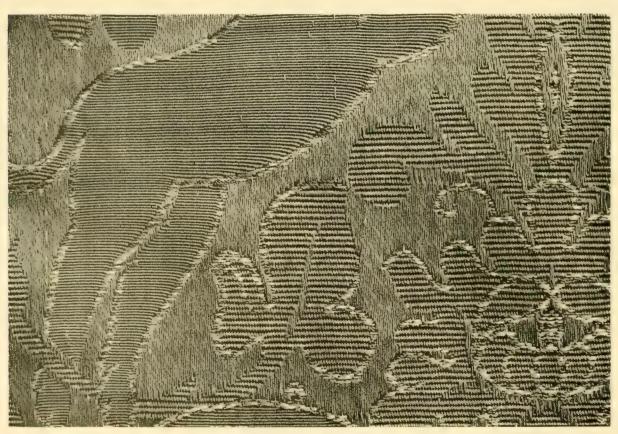
Just as tapestry is the most elaborately figured and characteristic product of the *bobbin loom*, so damask is the most characteristic figured product of the fully developed *shuttle loom*, whilst brocade is bobbin weft figuring superposed on shuttle loom effects, the word brocade being in its origin equivalent to *bobbin* or *bobbin-figured*, and



(1) Satin rep



(2) Silk damask

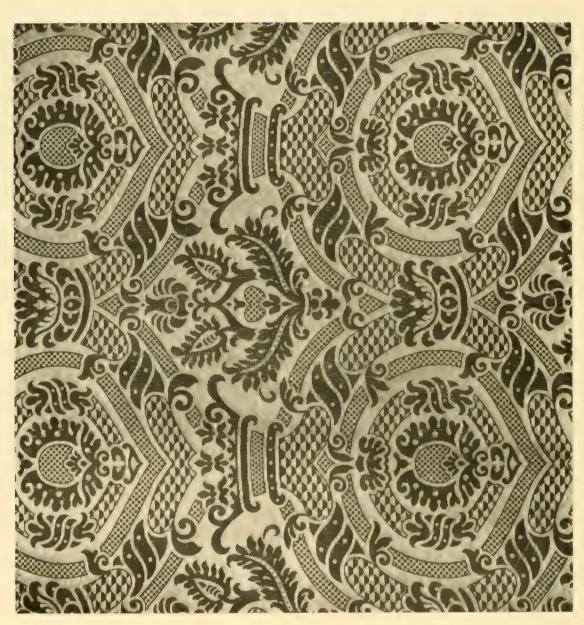


(3) Antique damask

Plate D · DAMASK WEAVES

also to the French broché, which is derived from broche, the word that designates the pointed bobbin of the high-warp tapestry loom. Real tapestry depends for its figures upon contrasts of coloured threads, whilst damask depends primarily not upon colour contrast, but upon line contrast, i. e., the contrast of the ribs of partly covered wefts with warp satin ground, or of warp satin figures with grosgrain or rep or twill ground. Plate D 2 is a typical silk damask with figures that have the horizontal ribbed effect of grosgrain taffeta because of the coarseness of the partly covered wefts, but that are really in weft twill, as can be seen from the back that is a pronounced warp twill with sharp diagonal ribs. We have then in the figures both diagonal rib and horizontal line effects that contrast boldly with the vertical line effects of the satin ground, giving the peculiar contrasts of light and shade characteristic of damask. If the wefts were a different colour or tone from the warps, the figures, being only partly covered with thin warps, would follow largely the colour or tone of the wefts. On Plate D 1 the figures are in warp satin and the ground in warp rep so that the wefts do not show at all.

In Plate D 3 we have one of the eleverest simple creations of the modern loom, called "antique damask." The figure of the dog whose head is decapitated in our illustration, is in fine rep, and the flowers are in coarse rep, both outlined by short weft floats against the satin ground. This means, of course, that all the surface except the outlines consists of the fine mercerised warps that cover the ribs of both the reps and form the surface of the satin. To form the coarse rep the wefts are, of course, covered in pairs. This, however, is not all. The designer was working on the inspiration, roughly and remotely if you will, but nevertheless definitely, of ancient mediæval damasks, and instead of keeping the warps all light in tone, made enough of them dark in small groups to diversify the tone of the outlines and also of the ribs through which the wefts show only a little but enough for the darker wefts to make their presence felt in relieving the otherwise monotonous surface of the dog's body, that is also subtly and agreeably broken by isolated warp floats. This "antique damask" is utterly and completely unlike the rich silk and gold creations of the twelfth and thirteenth centuries, but it shows a feeling for texture that is just as important when working in cotton as when working in silk and gold. It is a beautiful proof of the fact that some modern designers are able to see beyond the design paper and really feel the



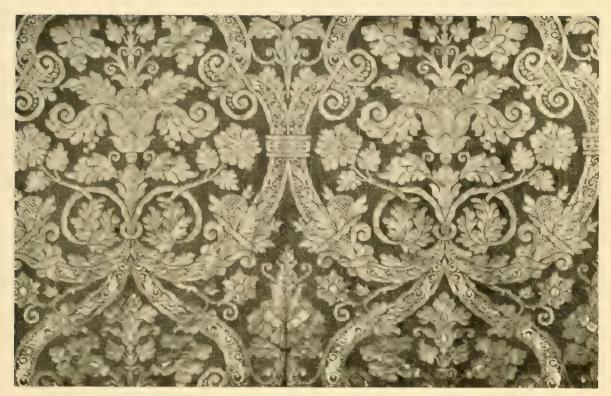


Plate III COTTON BACK DAMASK WITH SATIN AND GOLD FIGURES ON REP GROUND

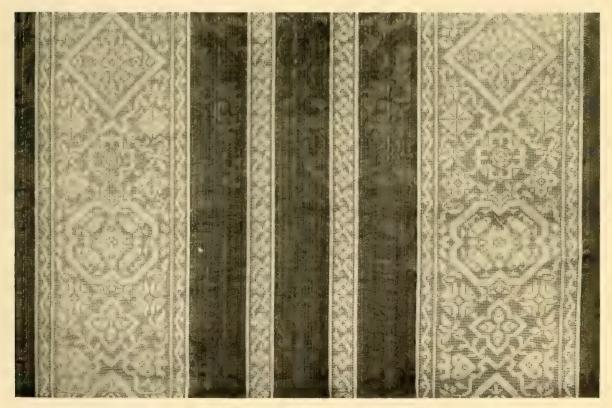
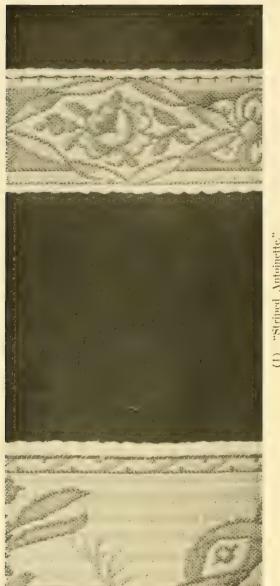
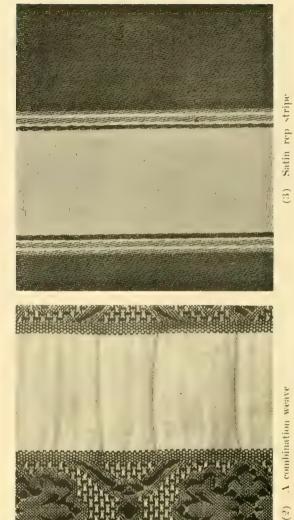


Plate IV- SILK DAMASK WITH FILET LACE STRIPES IN COTTON



(1) "Striped Antoinette."



(2) A combination weave

Plate E COMBINATION WEAVES

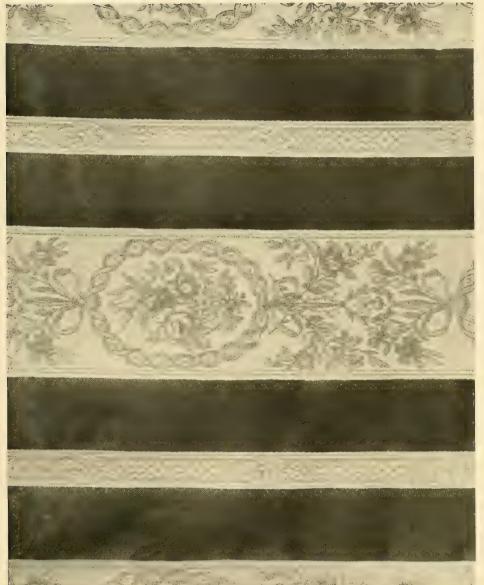


Plate V COTTON DAMASK WITH TAPESTRY STRIPES

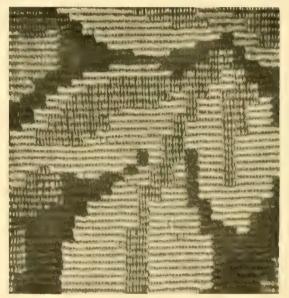
3.



(2) Armure broché







(3) Jacquard tapestry

Plate F ARMURE AND JACQUARD TAPESTRY WEAVES

threads in which their ideas are to be expressed. Plate E 3 shows satin stripes in one colour, alternating with fine rep stripes of another colour. The surface of both is a warp surface, the difference of colour being produced by having warps in groups of different colours.

MODERN WEAVES

With Plate F 1 we come to another weave characteristic of the shuttle loom (I almost wrote warp loom, because the tendency on the shuttle loom is to produce intricate figured effects by the manipulation of fine warps, just as on the bobbin loom by the manipulation of fine wefts). The weave of Plate F 1 is an armure weave, related, I think, to the word armure that the French use to describe the scheme of a warp system, and not, as has sometimes been said, to the armure that means armour. An armure shows small, conventional figures formed by floating short lengths of warps on a rep ground, so that the surface consists entirely of warps. The figure on F 1 is a fleur-de-lis framed in a diamond. Plate F 2 is an armure in rose, with silvery lace effect introduced by bringing white wefts to the surface and tying them down with warps so sparsely that they are hardly covered at all, and toned towards rose only a little. diamond mesh effect, produced by floating warps in the lace-framed large diamonds, is delightful. Floated effects in combination with basket weave and plain, partly covered weft ground, are employed in the black stripes of the "crinkled casement cloth" of Plate E 2, a feature of which is the *crinkle* of the white stripes in plain weave.

Why the fabric illustrated on Plate G 4 is called cotton taffeta no one knows, unless because it resembles silk taffeta in having partly covered wefts. The tiny figures certainly bear no resemblance to silk taffeta and are formed by weft floats. Plate G 1 is a typical silk broché with twill weft figures in high relief upon a finely ribbed warp ground. Just as typically what among modern silk fabrics is called a brocade, is Plate G 2, with its detached figures mostly in coloured wefts that float irregularly upon a ribbed warp ground, and with stripes that are figured by floating extra warps as well as wefts. Plate G 3 shows geometrical floated black weft figures upon a blue, finely ribbed warp ground through which the black of the wefts shines, stippling the surface agreeably.

Now we come to Jacquard tapestries that consist of two or more sets of warps and wefts (double cloths in fact), but that are tied on

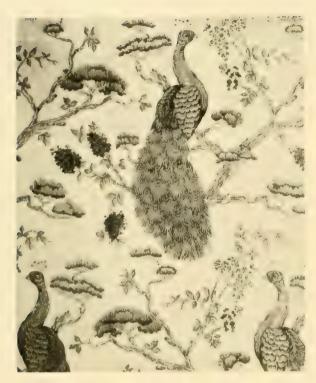


Plate VI

Plate VII

MODERN AMERICAN JACQUARD WEAVES



Plate VIII



Plate IX

JACQUARD COTTON BROCADES AND TAPESTRIES MADE IN AMERICA

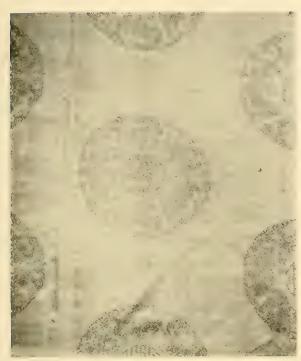


Plate X

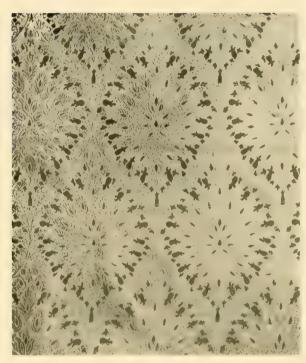


Plate XI



Plate XII

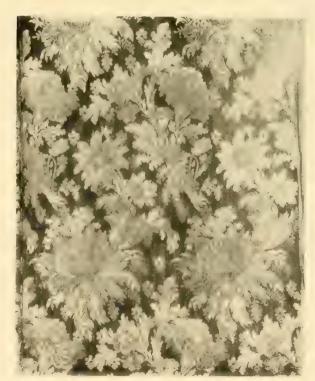


Plate XIII

MODERN AMERICAN NOVELTIES

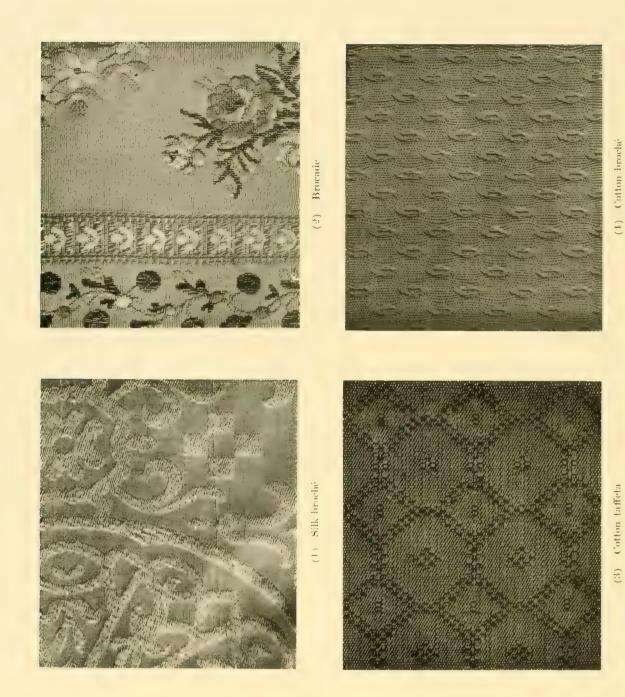


Plate G BROCHÉ AND NOVELTY WEAVES

the surface so as to produce the effect of plain weave ribbed as in Plate F 3, or lined both ways (i. e., in square point like cross-stitch needlework) as in Plate F 4. F 3 has a system of light coarse wefts with fine coloured warps, and also a system of black coarse wefts with fine coloured warps. The figures are formed by bringing to the surface sometimes the light wefts, sometimes the black wefts, and modifying their colour by warps that cover them partly, toning them towards red or blue or green or whatever tone is desired. While F 3 resembles real tapestry surface in being ribbed, the effects possible are limited as compared with those of the fine square points of F 4 in which complicated picture, as well as verdure effects, are produced. The same idea applied in coarse point, or in coarse combined with fine point, to the imitation of old cross-stitch needlework is wonderfully effective. Plate E 1 shows a most ambitious weave in cotton called "striped Antoinette." In it tapestry stripes alternate with black damask stripes, from which they are separated by cording formed of coarse warps loosely tied on the surface by slender weft binders. The points of the tapestry are very fine and the colours are many upon a cream ground. The figures of the damask stripes are in rep on satin, the surface being, of course, entirely warp.

In gauze weaves warp threads twist in pairs around wefts, holding them firmly and permitting the structure to be more open and more lace-like than the structure of other shuttle-woven fabrics. Plate H 1 is a grenadine with mercerised warps and artificial silk wefts, and is figured with plain weave flowers upon gauze ground. Plate H 3 is a gauze figured by omitting groups of warps. Plate H 2 is a coarse net with large open mesh, figured by twisting pairs of warps around pairs of wefts. Plate H 4 has large squares outlined by double cables upon a rectangular-mesh, gauze-net ground.

A very delightful fabric suggestive of the ancient gold damasks is shown on Plate II, with coarse gold wefts tied loosely down upon a plain blue jaspé cotton ground. The contrast between the horizontal gold wefts and the fine vertical warp threads of the ground is pronounced, but the colour contrast is softened not only by the greyness of the jaspé surface, and the blue that shines through the gold wefts from beneath, but also by the dulness of the gold, which consists of coffee-coloured strips of thin, tough paper gilded on one side and each twisted into thread after the fashion of the Japanese.

Plate III is a cotton-backed damask, that is to say, a red and

AND MET WEAVES Plate H-GAUZE

ganze

Striped

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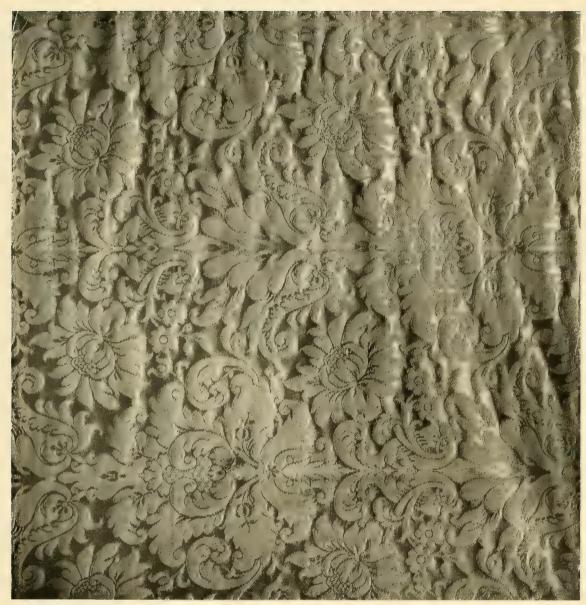


Plate XIV: -OLD STYLE DERBY

Plate XV NEW STYLE DERBY

gold damask with coarse cotton wefts that do not come to the surface except in short floats to outline the satin figures on rep ground, both of which are, of course, executed in silk warps. However, there are also gold figures, executed in supplementary wefts of gold which come to the surface in plain weave and are toned only a little, but agreeably, by the slender red silk warps that tie them at intervals. The red of the rep ground is darkened but enlivened by the twinkling through of the black of the cotton wefts, and the red of the satin figures by the twinkling through of the gold wefts.

Plate IV is a *lace stripe damask*, with filet lace stripes that alternate with damask stripes, the latter having rep figures on satin ground, both jaspé and executed in fine warps of lilac silk. In the lace stripes there are also coarse cotton warps and wefts brought to the surface and so tied with slender binders as to simulate the square mesh effect of filet lace, on a ground of lilac silk, whilst other coarse cotton wefts fill up the meshes of the darned part of the lace.

Plate V is the "striped Antoinette," illustrated for texture on Plate E 1. Plates XIV, XV, XVI are all mercerised "derby damasks," which is the trade name for cotton damasks. Plate XIV is an *old style* one shown in order to make clear the vast improvements in weave and texture that have been accomplished in the past ten years, as illustrated by Plate XV, which is a *new style* derby damask. Plate XVI is a derby damask with small figures.

SILK VERSUS CHEAPER MATERIALS

Whilst many of the fabrics so far discussed in this chapter exemplify the use of cheaper materials than silk to produce or supplement silk effects, it is not just to dismiss them with contempt as "cheap imitations." Many of the results obtained equal or surpass, but in a different way, the results obtained with silk, especially where there have been understanding and appreciation of the texture effects peculiarly possible to cotton and to mercerised, as in the derbies and the cotton-backed goods; of the texture effects peculiarly possible to linen, as in table damask; or to jute, as in burlap; or to artificial silk, as in several of the gauze weaves; or to gold, even paper gold, as in Plate II. The value of a work of art does not and should not depend upon the value of the materials that compose it. Human intelligence and human effort are what create art, and the success with which they are applied is the measure of the beauty attained. A well-planned

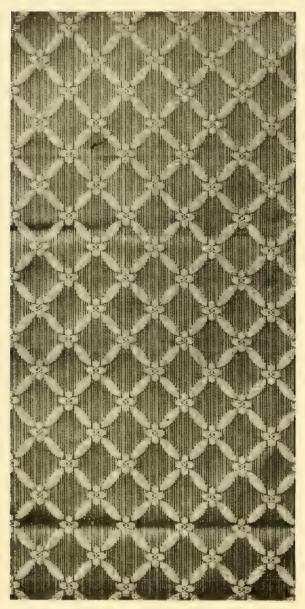


Plate XVI Small-figured Derby

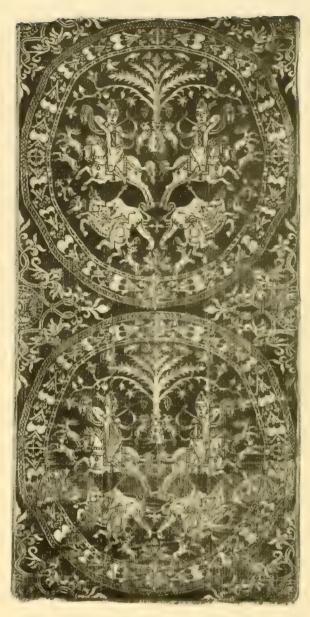


Plate XVII Modern gold velvet in Sassanid design

FUNDAMENTAL AND MODERN WEAVES

and well-woven jute or cotton is vastly more important than an all-silk textile put together badly. Only when the result is unsuccessful from the use and beauty point of view should the reproduction of silk damasks and brocades in cheaper materials be harshly criticised.

There should be no real competition between them. Silk has many qualities that in all other materials are not only inimitable but even absurd. It can afford to help educate the weavers of cotton to the possibilities of cotton.

FABRICS ENRICHED WITH GOLD

I have in this chapter illustrated a number of fabrics enriched with gold, and it is with much gratification that I note the increased use of gold tinsel in the fabrics of today, both those woven for dress goods and those woven for upholstery stocks. Gold skilfully handled mellows and blends companion colours wonderfully. The highest proof of this is the gold used in famous tapestries of the Golden Age, like the Mazarin tapestry, the Dollfus Crucifixion (Plate VIII of Chapter XIV) and Saint Veronica, formerly in the Morgan collection. But almost equally inspiring is the way in which gold was used in the damasks and brocades and velvets of the Middle Ages.

The velvet which is illustrated in Plate XVII is one of the most exquisite creations ever made in France and brought to this country. It is Sassanid Persian in style, one of the ancient wheel patterns, with personages and animals like those in Plates III to VIII of Chapter II. But the original (Plate III of Chapter II), dating from the sixth century A. D., which was discovered in 1898 in the treasury of the Church of Saint Cunibert in Cologne, and is now preserved in Berlin, is not a velvet but a "damask enriched with gold." The figures of the velvet reproduction are in gold and red-gold wefts on a red jaspé velvet ground, the redness of the red gold being produced by bringing more of the red warps to the surface as binders. Byzantine original is described on pages 70 and 71 of Falke's Seidenweberei. On dark blue ground, inside the wheels, under a date palm, are two mounted huntsmen with drawn bows whose arrows have each pierced two animals, a lion and a wild ass. Blossoms, eagles, hunting dogs, stags and hares fill the background. On the wide-spreading lower branches of the palm tree are clusters of fruit with blossoms and leaves of various shapes. In the upper branches are birds.

This modern velvet reproduction illustrates the same principle



Plate XVIII



Plate XIX



Plate XX



Plate XXI

MODERN AMERICAN JACQUARD WEAVES



Plate XXII

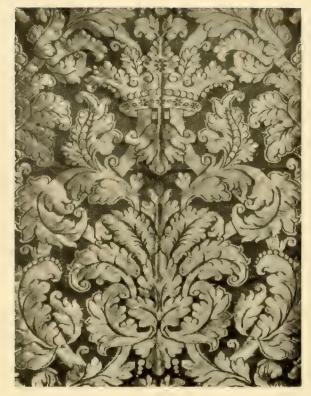


Plate XXIII



Plate XXIV



Plate XXV

MODERN AMERICAN JACQUARD WEAVES

DECORATIVE TEXTILES

(but in the finest materials and the most intricate and exquisite hand-loom work) that is illustrated in many of the cheaper and simpler fabrics treated of in this chapter (notably that of Plate II), and is an object lesson in the adaptation of ancient ideas effectively to modern conditions. Upon such adaptations, and upon the original ideas developed with them as a background, depends the textile future of this country.

CHAPTER V

LACES

USE, ORIGIN, NAME AND DEVELOPMENT; MACHINE LACES
AND LACE CURTAINS

One of the modern distinguishing marks of civilisation is the use of laces for residential and personal adornment. Fifty years ago lace curtains were a luxury in Europe reserved for the few, and on this side of the Atlantic, rarer still. Today they are in more general use in the United States than in any other country in the world, and every year sees an improvement in designs and also in texture and material.

Yet there are decorators and architects who declare themselves opposed to lace curtains, for sanitary and decorative reasons, and seldom or never employ them in their practice. Occasionally writers for the newspapers even announce that the day of the lace curtain has passed, and that in the future our homes will be comparatively free not only from lace but also from other textiles such as damasks, velvets, brocades, embroideries, cretonnes, tapestries, carpets and rugs.

Nevertheless, the use of laces and other upholstery and drapery goods continues to increase. People generally realise that textiles are quite as necessary and appropriate for the inner covering of houses as for the outer covering of bodies; and that, as far as sanitation is concerned, the dust that is caught and held by a textile, until removed by the cleaner, is innocuous as compared with the dust which unclothed walls and furniture allow to rush for human lungs whenever the air is set in motion by the opening of door or window.

From the decorative point of view the use of openwork textiles, light alike in tone and texture, is highly to be approved. But, of course, the designs should harmonise with the other furnishings—sometimes merely plain net hemmed wide at the edge, sometimes elaborate combinations of *filet italien*, *point de venise*, *flanders*

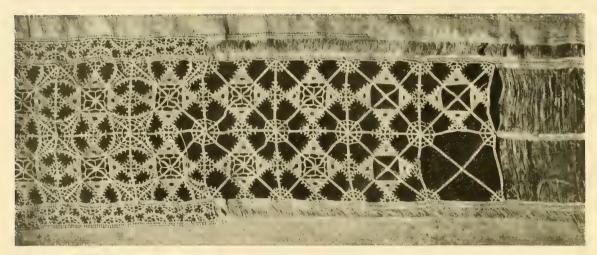


Plate I ANCIENT RETICELLA LACE ON DRAWN LINEN Only partly finished and hence illustrating the process in detail

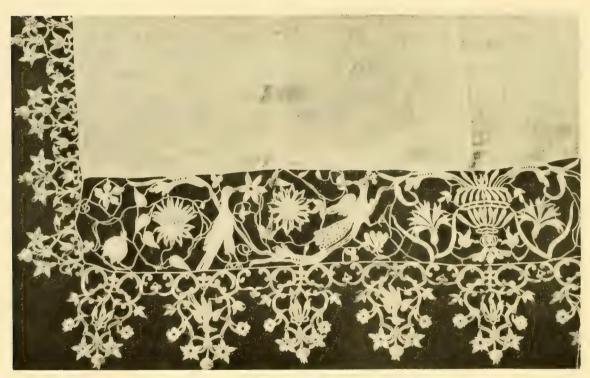


Plate II—PUNTO IN ARLA NEEDLEWORK LACE
After it emancipated itself from the reticella geometrical tradition. Note the vivacity of the
birds and the exquisite warmth of the leaves and flowers

guipure, or even the geometrical and primitive needlepoint reticella.

Especially to be commended is the fact that lace curtains tone the light without quenching it. Nothing is more ugly or more injurious to the eyesight than the burning glare and shadow of uncurtained windows, or of windows where the amount of light is controlled only by opaque roller shades.

Daylight is usually bearable out of doors where distant vistas relieve the vision, but daylight for indoor use requires quite as much skill to control and temper as does artificial light.

THE ORIGIN OF LACE

At this point the question naturally arises: What is lace? How is it distinguished from embroidery and from the product of the loom?

The answer, of course, is: It isn't. Some lace is embroidery and some lace is produced on the loom. The only satisfactory and complete definition of lace is:

Openwork made with needle, or bobbin, or by knitting, knotting, tatting, or crocheting. Whether the work is done by hand or machine makes no difference, except that the term real lace is reserved for the hand-made laces. Also, it is well to point out that lace effects range from plain net with regular meshes, to animal and human or conventional figures, in close texture and contrasting sometimes with net ground, sometimes with open ground that is intersected only by the slender brides that hold the motifs together. Also, whilst most laces are white or cream, some are polychrome, or black, or gold, or silver.

The origin of lace, like the origin of most arts, is hard to determine. We have hair and breast nets that have been safely preserved in the graves of ancient Egypt since over a thousand years before the time of Rameses the Great, who was Pharaoh in the thirteenth century B. C. We have many plain and fancy nets of the Greek-Roman-Egyptian type known as Coptic, dating from the third to the seventh centuries A. D., as well as ancient nets made in America, some of them on the loom, with interrupted or irregular weft, which have been preserved in Peruvian graves since the time of Columbus and before.

Nevertheless, of lace as we know it the creation and development is due to Italy, just as entirely as was the development of picture tapestries due to the French Netherlands, of Gothic architecture and

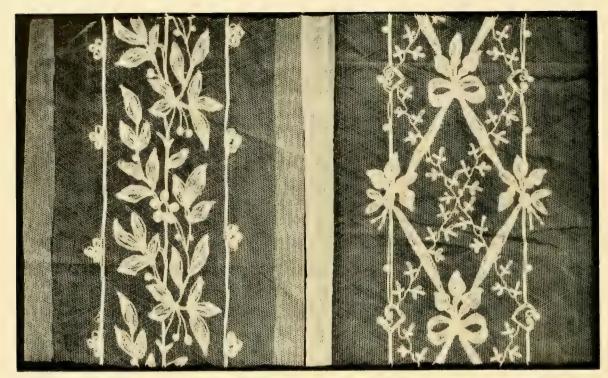


Plate III-Swiss brussels lace motifs for curtains

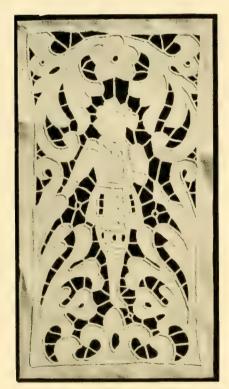
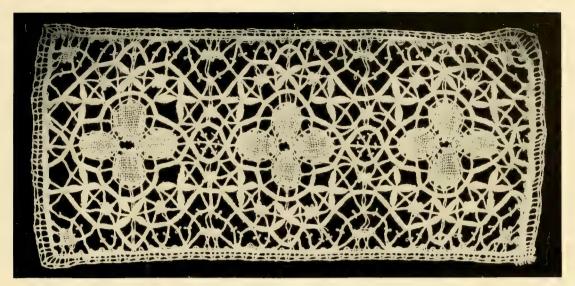


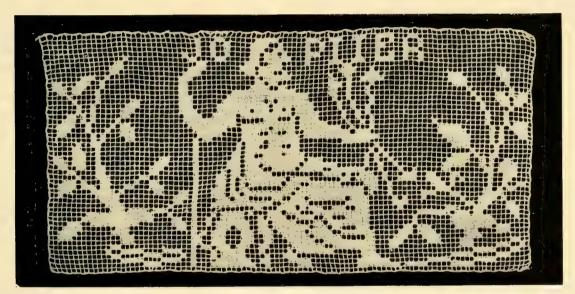


Plate IV - On the right, broderic anglaise (pierced work, which is the simplest form of cutwork) with reticella centre; on the left, cutwork figure of man

EXAMPLES OF REAL LACE MOTIFS



a Cluny venise lace



b—Filet italien figure panel



c-Filet insertion lace

Plate V—EXAMPLES OF REAL LACES

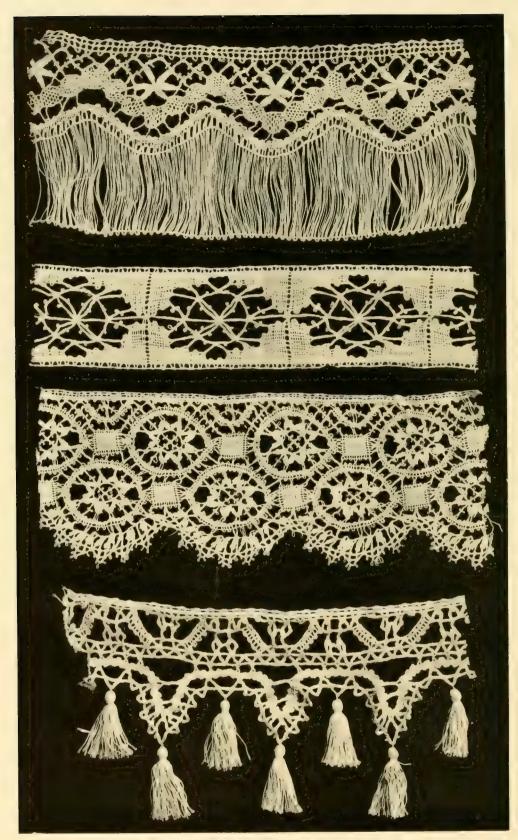
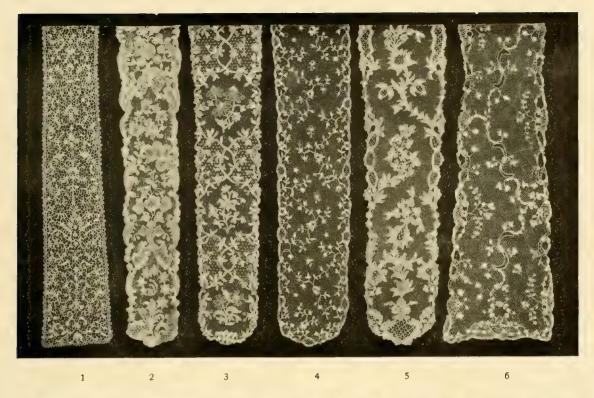
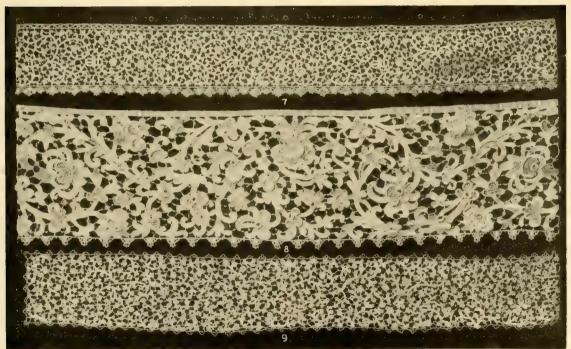


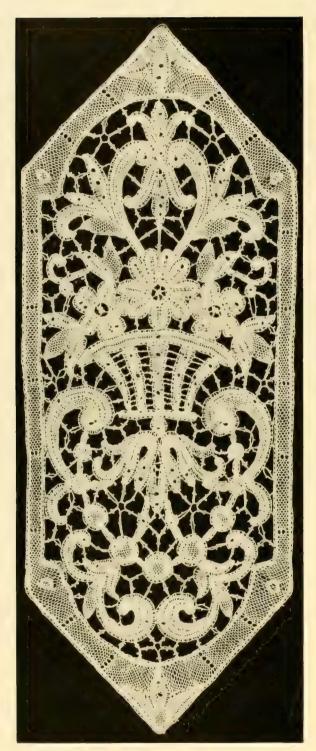
Plate VI -VARIOUS TYPES OF CLUNY LACE





1—Venetian rose point. 2—English point. 3—Argentan. 4—Angleterre Louis XVI. 5—Burano point. 6—Alençon. 7—Venetian rosaline. 8—Venetian raised ivory point. 9—Venetian rose point.

Plate VII—EXAMPLES OF REAL LACES



a Flanders lace panel

b Bruges lace panel. Similar to Flanders lace but finer in texture

Plate VIII EXAMPLES OF REAL LACE MOTIFS

stained glass windows to France, and of silk to China. The development began in the fifteenth century, as illustrated in the paintings of the period and occasionally referred to in wills and inventories, and reached its height in the sixteenth century. Venice (Plates I, II), perhaps inspired by primitive laces and trimmings of the Roman Empire of the East, and of Sicily, led in the development of lace made with the needle, but was soon outstripped by Genoa in the production of lace made with bobbins. Another Italian city famous for bobbin lace in the sixteenth century was Milan. A majority of the designs were outlined in braid scrolls with openwork edge, held together by slender plaited brides. The Genoese laces largely reproduced the styles of Venetian reticella and other needlepoints.

ORIGIN OF THE NAME

The history of the English word *lace* follows closely the development of the fabric in Italy. Before the sixteenth century, lace meant fringes and trimmings, and cord and tape lacings. The ancient usage is still continued in the *laces* of corsets, waists and shoes. (On this point consult my article on *Lace* in the new edition of the New International Encyclopædia.)

The word is derived from the Latin laqueus, meaning loop or noose, which is also the meaning of the derivatives, the French lacs, the Italian laccio, the Spanish lazo, and the English lassoo. Equivalent to lace of the kind that forms the subject of this chapter are the French dentelle, guipure, point; the German Spitzen and Kanten; the Spanish encaje; the Italian trina, merletto, punto, pizzo; and the Latin opus reticulatum et denticulatum. The French lacis means net, and the French lacet cord or braid.

EARLY ITALIAN LACES

The earliest of the important Italian laces were reticella, filet italien, and buratto. The first was a development of drawn and cut work (Plate I), but the name was retained for similar lace made with the needle without cloth foundation. The designs are geometrical and simple, and arranged in small squares.

When needle lace so completely freed itself from its reticella and cut work ancestry (Plates I, II and IV) as to be worked in bold and irregular patterns like those of Plate II, it began to be called air point (punto in aria), the highest type of Venetian laces.

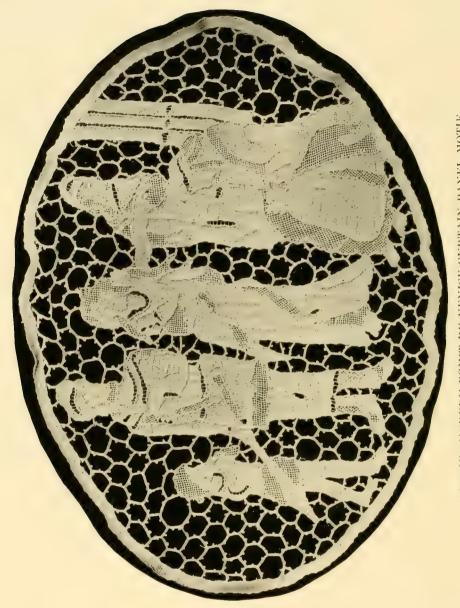
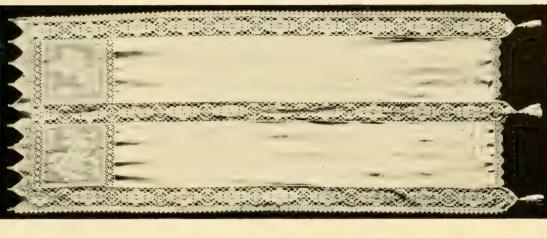


Plate IX MODERN POINT DE VENISE CURTAIN PANEL MOTIF



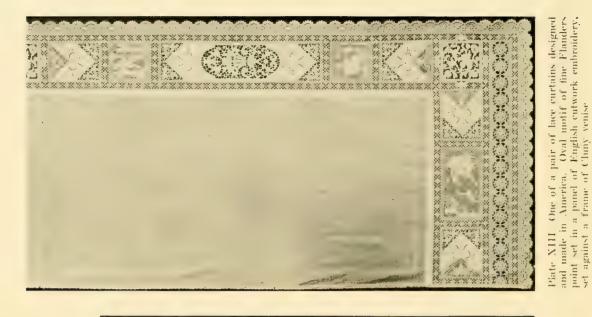
3 Panels at the top of Italian filet; insertions of Flanders lace; edging and top heading of filet.

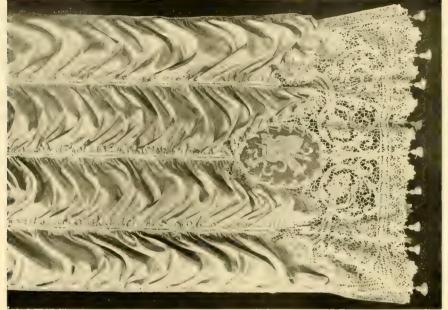


1 Two large oblongs, Italian filet; two small oblongs, English cut-work; insertions, Cluny venise; central feature, Bruges point.

2 Centre of Italian filet; other motifs of Flanders lace. American design executed in Europe.

Plate X DOOR PANEL DESIGNS OF REAL LACE





The state of the s

Plate XII American real lace curtains of Austrian shade type

Plate XI A drop panel for windows composed of Flanders lace and Italian filet, with oblong motifs of English cutwork surrounding the oval, the whole

mounted on a fine French serim.

CURTAIN DESIGNS OF REAL LACE

111 100 (101)

Filet italien starts with a coarse hand-knotted square-mesh net foundation, on which the closed or toilé parts of the pattern are darned in (Plate V b, c). Buratto is a woven substitute for the knotted net—a square-mesh net made in gauze weave with warps that twist in pairs around the wefts. Drawnwork net is made by drawing the alternate threads of scrim or étamine, and binding the intersections with the needle.

BOBBIN VERSUS NEEDLE

Bobbin lace (Plate VI) like punto in aria is made on a pillow carrying the pattern that guides the worker; but instead of being made with a needle that in buttonhole stitch ties together the different outline threads, it is made with numerous bobbins that twist together or plait the threads without the limitations imposed by the loom, or by the needle. Moreover, bobbin lace is much less expensive to make than needlepoint.

The German claim to the invention of bobbin lace is not supported by the facts, although in 1834 at Annaberg, in the Hartz Mountains, a monument was erected to "Barbara Uttmann, died January 14, 1575; inventor in 1567 of bobbin-made lace which made her the benefactress of the neighborhood." Already in 1560 the author of the text of a book of bobbin-lace designs published by Froschower at Zurich had said: "From among the divers arts invented and practised for the good of humanity, we wish to mention the art of making bobbin lace which arose in our country about twenty-five years ago and quickly took root amongst us. It was imported into Germany from Italy for the first time by Venetian merchants in 1536."

Especially interesting is the comparison the same writer makes between needle and bobbin lace. He says:

"When, years ago, the method of trapunto and relief was in vogue, there is no telling how much time was taken in making a collar or bib or anything of the sort, joined to heavy expense to the person by whom it was ordered. On the contrary, now, a bobbin lace may be acquired for little money and in much less time, because the cost of production is so much reduced. Formerly, too, collars and other articles were adorned with threads of gold and coloured silk, occasioning vast expense and trouble in cleaning or washing with soap; now all this is reformed and trimmings are of thread capable of resisting the wear and tear of the wash tub."

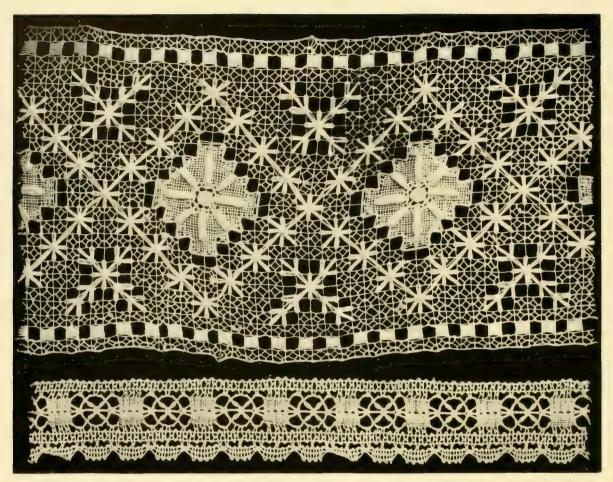


Plate XIV Above, filet antique; below, machine Cluny

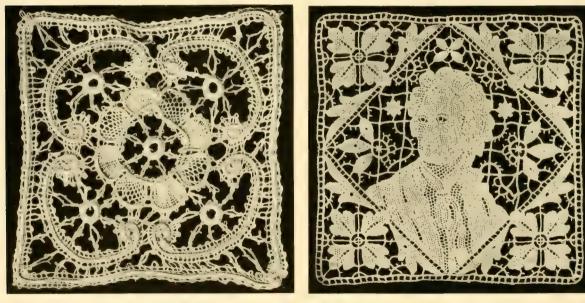


Plate XV On the left, modern "Arabian" lace; on the right, schifflé lace motif

EXAMPLES OF REAL LACE MOTHS

FRENCH AND FLEMISH LACES

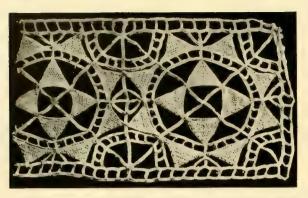
The early Venetian laces were flat, and not till about 1640 did rose points (raised points) with corded and relief effects begin to be made (Plate VII, 7, 8, 9). Those of boldest design and highest relief are called gros points de venise. About the middle of the sixteenth century Flanders began to be a lively competitor of Italy in the making of lace; and soon after, France attempted to follow suit. Henri III (1575-89) appointed a Venetian, Frederic Vinciolo, court patternmaker of linen embroideries and laces, and some of his designs were published in book form. Finally, in the last half of the seventeenth century, in the reign of Louis XIV, the importation into France of Italian and Flemish laces was forbidden, and Venetian lace workers were secured to help develop the industry at Alencon, Arras, Rheims, and other centres. These French imitations were called points de France (Plate VII, 3, 6). The Alençon designs were more fanciful, and less severe, than the Italian ones, and were widely copied by the Flemish makers. Both French and Flemish laces laid particular emphasis on fineness of thread and delicacy of texture, thus leading taste away from the standards that had made Italian laces famous and beautiful.

About the middle of the seventeenth century the Flemish guipure bobbin laces with bride grounds (Plate VIII a, b) began to be called points de flandres ("Flemish lace," now called Flanders or Bruges); while the scroll patterns on net ground were designated as points d'Angleterre. Among Flemish cities of high reputation for individuality in bobbin lace was Mechlin, with its hexagonal mesh and corded effects, and Brussels with an even more elaborate hexagonal mesh and with naturalistic designs based on needlepoint Alençon. The English Honiton is a simpler and cruder form of Brussels.

Most of the hand-made laces used in American interior decorative work come from France and Belgium, and most of the machine laces from France and England. While the laces made at Burano (Plate VII, 5), a suburb of Venice, where the industry was revived about forty years ago, are worthy of the best traditions of the Italian Renaissance, they are too expensive for most modern drapery work.

MACHINE LACES

The first lace machine was based on Lee's stocking machine, as modified by Strutt and Frost in 1764 to produce net. By 1769 Frost



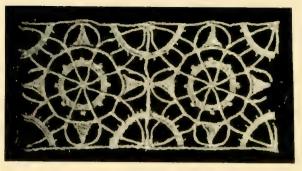
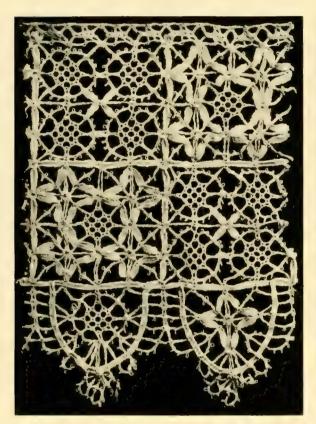


Plate XVI--On the left, reticella needle lace; on the right, schifflé imitation reticella lace



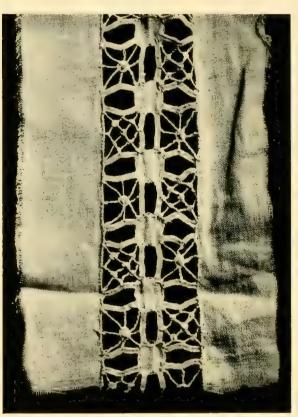
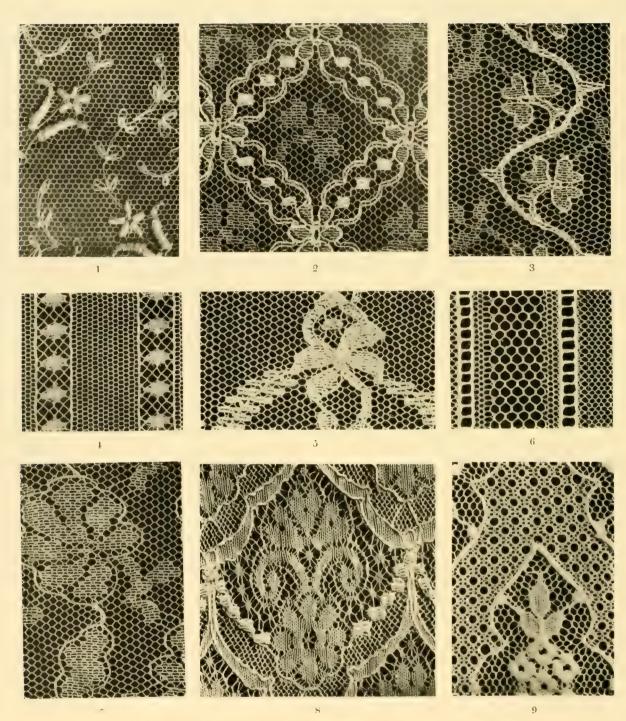


Plate XVII—On the left, Cluny venise lace; on the right, Russian drawnwork

EXAMPLES OF REAL LACE MOTIFS

was able to make figured net, and by 1777 net with square meshes that were fast. The second lace machine is the warp frame, so called because for each warp thread there was an individual needle which looped the thread first to the right and then to the left. By 1795 this machine produced plain net and soon afterwards figured net in an almost endless variety of meshes and patterns. The third lace machine. brought to perfection by continued improvements during the past century, is the so-called Leavers machine, originated by John Heathcoat (1809) and John Leavers (1813). The application to the Leavers machine of the jacquard attachment (see Development of the Loom in Chapter I) vastly increased the range and intricacy of patterns possible, and the operation by water and later by steam and electric power vastly increased the speed and quantity produced. In the Leavers machine warp threads and bobbin threads are used, sometimes more than 9,000, making 69 pieces of lace at once, each piece requiring 100 warp and 48 bobbin threads. The warp threads are stretched perpendicularly (as on the tapestry and Oriental rug highwarp loom), just far enough apart to admit the passage between edgewise, of a twenty-five cent piece. The bobbins are so flat and thin that they pass without difficulty. Ingenious mechanism varies the tension of warp and weft threads as desirable. As the bobbins swing like pendulums through the warp threads, they are made to vacillate and twist around the warps, and the twistings are driven home by combs. If the bobbin threads are held taut and the warp threads loose, the warps will twist on the bobbin threads, and vice versa. Whilst many of the laces and nets and nottingham lace curtains made on the Leavers and the lace curtain machines are exceedingly attractive, their imitation of real lace is far surpassed by the new Nottingham circular lace machine which produces cluny insertions and edgings that are in every way identical with those of hand-made cluny (Plate XIV).

The most important embroidery machines used to make laces are the hand-embroidery machine that multiplies automatically the work of the operator who executes the master pattern, and the schifflé or power embroidery machine that employs shuttle as well as needle and has an output many times larger than that of the hand machine. On these two machines are made the world's imitations of rose point and gros point laces, and to machine nets are added embroidery effects of the most pleasing type (Plate XVIII). The open-ground laces made



2, 3, 4, 6, 7, 8, 9, figured in the weaving; 1, 5, embroidered with the schifflé machine. (Reproduced at actual size)

Plate XVIII—GROUP OF MODERN FANCY NETS

on the schifflé machine are embroidered on a silk or woollen ground that is rotted away chemically after weaving, leaving the boldest possible guipure effects (Plates VII a and VIII a).

The bonnaz machine is used principally in the making of the so-called swiss lace curtains. There are also sewing machines that produce a buttonhole edging and drawnwork effects.

Most machine laces are made of cotton, thus rendering it easy to distinguish them from real laces that are usually made of linen.

Fifteen years ago nottingham one-piece lace curtains, in large scroll designs, most of which were bad, were the bread-and-butter of American drapery departments. Ruffled and fluted muslins, and novelty curtains with nottingham laces applied as insertions and edgings on ruffled and plain nets, were carried for the better trade, but for the poorer residences and for all hotels of every class the nottingham was the thing. Now the old-style nottingham is welcome nowhere, and the nottingham manufacturer, American as well as English, is rapidly becoming merely a supplier of raw materials to the converter. Of course, I should add that for many years practically all of the nottingham lace curtains used in America have been made in America. In this connection it is interesting to note that the first nottingham lace machine to come to America was set up at Fordham, in New York City, in 1885.

VARIETIES OF LACE CURTAINS

The principal varieties of lace curtains are:

- (1) French Lace Curtains.—A general name for those made with *real lace* mounted on machine net, or on silk, or on scrim, as well as for the few that are made entirely of real lace.
- (2) Nottingham Lace Curtains.—A general name for those woven in one piece on the lace curtain machine, usually with an embroidered buttonhole edging added after weaving and sometimes with an appliqué cord, as in the once popular "corded arabians."
- (3) Swiss Lace Curtains.—A general name for those made by embroidering designs with the bonnaz sewing machine on machine net. The principal varieties are tambour, brussels, appliqué and irish point. The tambours are so called from the embroidery frame that formerly held the net while the embroidery was put in by hand with the crochet hook. The brussels have the field of figures filled in with bonnaz stitch of finer yarn (Plate III). The appliqués have thin



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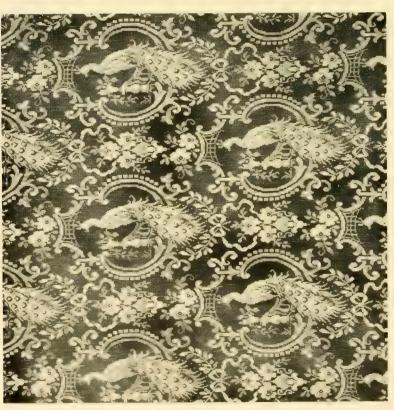
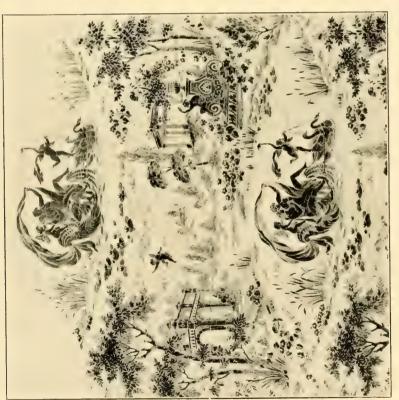


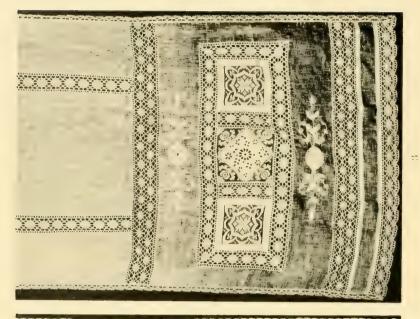
Plate XIX MACHINE-MADE CURTAIN NETS

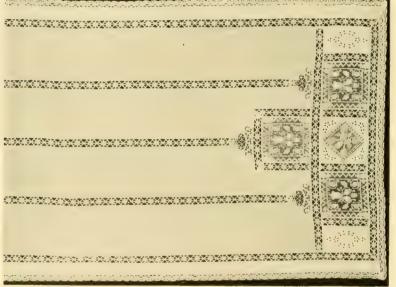














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muslin appliqués filling the ground of the figures. The *irish points* have openwork *spiders* in addition to the muslin appliqués. Besides these four varieties there are numerous *étamine*, *double net* and *coloured novelties*, many of them in architectural and period designs.

- (4) Madras and Other Gauze and Fancy Weaves. Made on a gauze loom with openwork effects. In gauze weave (Plate H of Chapter IV) the warps twist in pairs around the wefts, making possible the production of extremely lacy effects. Madras has broche figures with the floats trimmed off. Polychrome madras has been succeeded in popularity by the creams and écrus. Crete is heavier than madras and has an étamine instead of a gauze ground. Also the cut side is the right side of madras but the wrong side of crete.
- (5) Novelty Lace Curtains.—A general name for all kinds of effects produced without the use of real lace, by the application and insertion of nottingham and other machine laces and braids on net, or scrim, or muslin; sometimes, but rarely now, with ruffled net or muslin or cretonne edging. The once popular renaissance laces made in imitation of Flanders and Bruges lace (Plate VIII) by tacking together woven braid with brides and spiders have now practically disappeared from the shops; even the arabian motifs made in imitation of the hand-made arabe lace (Plate XV) by using corded braid are also being crowded out. Princess lace, like renaissance, starts with woven tape but is of finer quality and has more hand-work introduced. Scrim, especially the better qualities with drawnwork effects, is constantly increasing in popularity, and constantly the quality of net demanded by even the cheaper trade is improving.

I would sum up by saying that all laces, machine as well as hand, divide into two great classes: (1) those made with the needle or crotchet hook, (2) and those made with the bobbin or otherwise; that is to say, (1) those sewed or embroidered, (2) those plaited or woven, or knotted, or knitted, or tatted.

Credit for illustrations: Plates I to XVIII, John F. Patching & Co.; Plate XIX, Bromley Mfg. Co. and Patchogue Mfg. Co.; Plate XX, Quaker Lace Co.; Plates XXI 1 and 2, E. C. Carter & Co.; Plate XXI 3, Loeb & Schoenfeld.

CHAPTER VI

EMBROIDERIES

Origin, Byzantine Roman, Sicilian, English, Flemish, Florentine, American, East Indian, Chinese

Most of the embroideries made today are either copies of ancient ones, some intended for sale as antiques, or conventionalised patterns produced in quantity on the bonnaz or the schifflé machine. This is so in spite of the fact that in the latter part of the nineteenth century such distinguished artists as William Morris, Burne-Jones and Walter Crane supplied English embroiderers with original designs. However, too much cannot be said in praise of some of the petit point and crewel work now being done by hand in England. It is faithful in spirit as well as in letter to ancient traditions, and, like the best work of old, is based on or adapted from ancient models. In the United States there has been a remarkable development of schifflé work since the war began.

Embroidery is the art of ornamenting cloth and other materials with the needle. But embroidery on net and cutwork belongs with lace. Embroidery was probably applied to skins almost as soon as needle and thong were first employed to join pieces of skin together into garments. The Laplanders embroider their reindeer-skin clothing with needle of reindeer bone, thread of reindeer sinew, and appliqué of strips of hide. Among the primitive tribes of Central Africa the girls embroider skins with figures of flowers and animals, supplementing the effect with shells and feathers.

Of the textiles of ancient Babylon and Assyria, no fragments have survived. But the Nineveh mural reliefs in the British Museum show Assyrian robes with both geometrical and floral ornaments, and the famous relief now in the Louvre from the palace of the Persian king, Darius I (485-321 B. C.), shows robes with diaper patterns. These ornaments, like those of the hangings of the Jewish tabernacle



Plate I-ANCIENT ITALIAN EMBROIDERY IN APPLIQUÉ STRAW In a New York studio



Plate II FACE AND BACK OF THE PAMOUS DALMATIC OF CHARLEMAGNE

EMBROIDERIES

described in the Book of Exodus, may all have been tapestry but it is probable that most of them were embroidery.

Among the ancient Greek textiles exhumed from Crimean graves are both tapestries and embroideries now preserved in the Hermitage at Petrograd. One of the embroideries attributed to the fourth century B. C. is in coloured wools on wool, and shows a cavalier with honeysuckle ornament. Another piece has a stem, and arrowhead leaves, richly and elegantly worked in gold.

Martial, in the first century A. D., writes that the embroideries of Babylon have been driven out of fashion by the tapestries of Egypt (victa est pectine Niliaco iam Babylonis acus). The common Roman name for embroidering was "painting with the needle" (acu pingere). Virgil uses it in speaking of the decoration of robes, and Ovid describes it as an art taught by Minerva. Pliny says that the first mention of embroidered garments (pictas vestes) is in Homer, and that the Phrygians were the first to ornament robes with the needle, which is why they are called Phrygioniae. He adds that gold-embroidered garments were named Attalicae from Attalus II, King of Pergamum (159-138 B. C.), to whom he wrongly attributes the invention of the art of embroidering in gold.

The oldest large collections of ancient textiles are those called Coptic because executed in Egypt from the third to the eighth centuries. Such collections exist in the Metropolitan Museum of New York, and in the Boston Museum of Fine Arts, as well as in numerous European museums. Most of the designs are Roman in style and show birds, animals and human figures, vases, fruit, flowers and foliage, besides geometrical and interlacing ornament. But most of these are tapestry-figured, only a few of them having part of the ornament outlined in embroidery.

BYZANTINE ROMAN

The most extraordinary example of Byzantine Roman embroidery that is still preserved is the "dalmatic of Charlemagne" in the sacristy of Saint Peter's at Rome (Plate II). The ground is of purplish-blue satin. The garment is said to have been worn by Charlemagne when, vested as deacon, he sang the Gospel at high mass on the day the Pope crowned him Emperor (Christmas Day, A. D. 800). On the front is shown the youthful Christ enthroned with saints below and angels above; on the back, the Transfiguration. The





Plate III TWO FRAGMENTS OF THE BAYEUX TAPESTRY The most famous embroidery in the world



Plate IV "JOHN THE BAPTIST" One of the "Golden Fleece" embroideries, the most magnificent set in existence

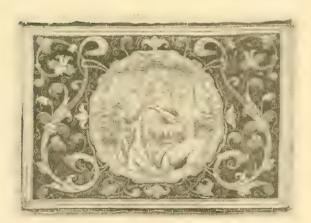


Plate V- Seventeenth century embroidered panel



"Birth of John the Baptist"



"Herodias Receives the Head of John the Baptist"

Plate VI TWO OF A SET OF FIFTEENTH CENTURY FLORENTINE EMBROIDERIES

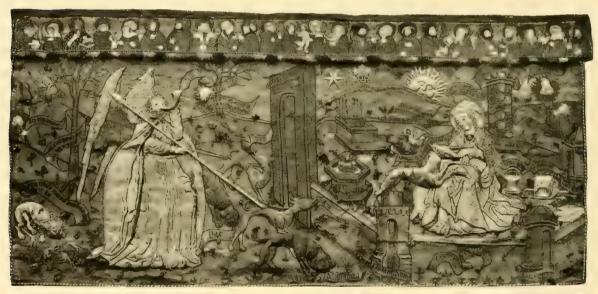


Plate VII RENAISSANCE COUCHED EMBROIDERY



(a) The Triumph of Protestantism with Henry VIII on the throne



(b) Philip II of Spain and his wife, Queen Mary of England

Plate VIII ENGLISH RENAISSANCE EMBROIDERIES



Plate IX English crewel work of the seventeenth century



Plate X | English cushion cover in crewels Embroidered in coloured worsteds on flat twill ground | Modern reproduction

embroidery is mostly in gold, the draperies being executed in basket weave and laid stitches. The faces are in white silk split-stitch, flat and outlined in black silk. The hair, the shadowy part of the draperies, and the clouds are in especially fine gold and silver thread with dark outlines. A noteworthy feature of the patterned background is the crosses inside of circles.

SICILIAN

In the twelfth century the Sicilian city of Palermo, under the Normans, rivalled Byzantium (Constantinople) as the world's embroidery and weave centre. The styles were largely Saracenic because of the many Mohammedan workmen employed. One of the magnificent coronation robes at Vienna, embroidered in gold with a date palm, and two lions attacking camels, and enriched with pearls and tiny enamelled plaques, bears an Arabic inscription stating that it was made in the royal factory at Palermo in the year 528 (A. D. 1130). Another of the coronation robes bears an inscription in both Arabic and Latin stating that it was made in the city of Palermo in A. D. 1181.

BAYEUX TAPESTRY

The most famous and best-known embroidery in the world is the so-called Bayeux tapestry, which is not a tapestry at all, but a band of linen 200 feet long embroidered in coloured wools with the story of the Norman conquest of England (Plate III). The earliest mention of this embroidery is found in 1476 in the inventory of the cathedral of Bayeux, the walls of the nave of which it exactly equals in length. It is now kept framed and glazed in a building erected especially for it, and has been removed from Bayeux only once, by the command of Napoleon for exhibition in Paris. Tradition says that it was the work of Queen Matilda, the wife of William the Conqueror. but others think it was made for his granddaughter, the Empress Matilda, and still others that it was made on order of Bishop Odo for the decoration of his cathedral of Bayeux, which was rebuilt in 1077. At any rate, the embroidery is an historical as well as an embroidery document of prime importance. Light and shade are entirely neglected and distance effects are secured by contrast of line and colour, a green horse, for example, having his off legs red, a vellow horse having them blue. The figures are filled with threads laid flat side by side and bound at intervals by cross-stitches, the seams, joints



Plate XI- A SIXTEENTH CENTURY SPANISH COPE With elaborate gold-embroidered orphrey





Plate XII LOUIS XVI PICTURES Embroidered in chenille and silk

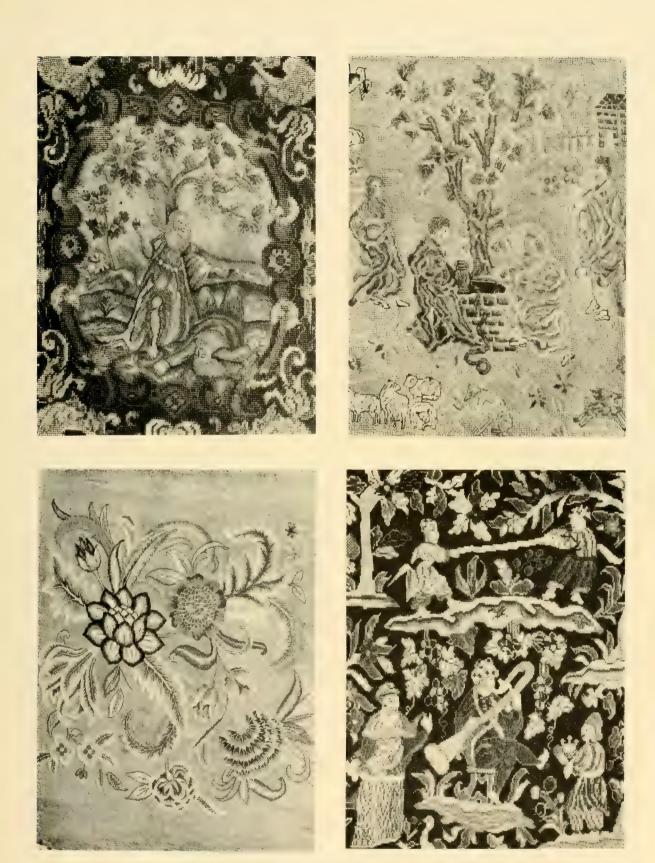


Plate XIII ANCIENT ENGLISH EMBROIDERIES FOR FURNITURE COVERING

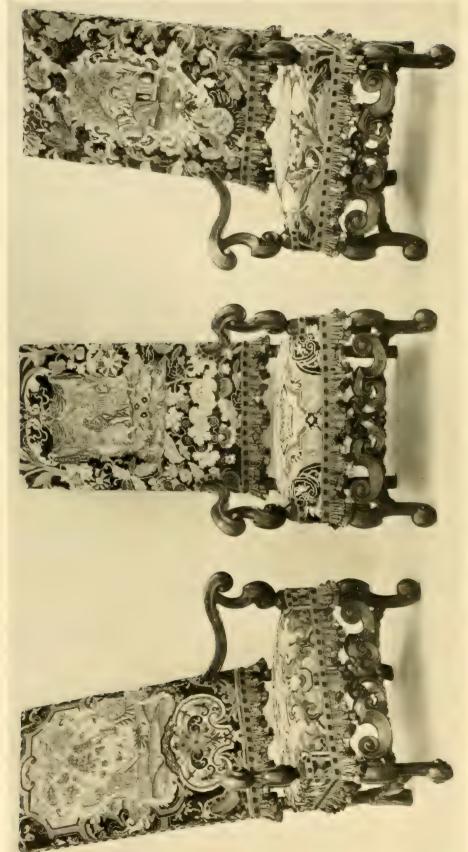


Plate XIV CHARLES II CHAIRS UPHOLSTERED IN PETIT POINT In the Metropolitan Museum of Art





Plate XVI—Petit point pillow top with silver wire St. Peter with keys, the cock on the column behind him Modern reproduction



Plate XVII—Chinese monogram designed and embroidered with bonnaz machine, for use on a Chinese chair Made in America

Plate XV—(At left and right): English bell pulls in the Chinese Chippendale style Modern reproductions



Plate XVIII—Bench cover in petit point on gros point, English Chinese style Modern reproduction



Plate XIX Charles II sofa covered with ancient petit point embroidery (c).

EMBROIDERED FURNITURE COVERINGS

and folds being indicated in twist. The faces and hands are merely outlines. The first of the two scenes illustrated shows Harold and his men riding to Bosham (eqvitant ad Bosham). Harold, mounted with falcon and dogs, approaches the church (ecclesia). The scene below shows William and his army crossing the Channel and arriving at Pevensey (et venit ad Pevensae).

ENGLISH, FLEMISH AND FLORENTINE

In the library of the English cathedral of Worcester are fragments of thirteenth century gold embroidery on silk taken from the coffins of two of the bishops, besides other similar fragments in the British Museum and in the South Kensington Museum. At this period, English sacred embroidery was so famous that we find it constantly appearing in the inventories of western Europe as "de opere anglicano." The most splendid example that has survived is the Syon cope, now exhibited in the South Kensington Museum. The embroidered medallions show Christ on the cross, Christ and Mary Magdalen, Christ and Thomas, the death of the Virgin, the coronation of the Virgin, Saint Michael, and the Twelve Apostles, whilst the spaces between the medallions are occupied by winged cherubim. The ground of the cope is embroidered in green silk, the medallions in red and the figures are worked in gold, silver and coloured silks. The lower border and the orphrey, with its coats-of-arms, are of later date.

At the head of all embroideries, however, stands the set of vestments and altar hangings in Vienna associated with the Order of the Golden Fleece that was founded in the first half of the fifteenth century by the Burgundian ruler of Flanders, Duke Philip the Good. About the identity of these embroideries there is not the slightest doubt, as they were recorded in detail in the inventory of the treasury of the Golden Fleece made in 1477. I have selected for illustration the one that pictures Saint John the Baptist (Plate IV).

Plate VI illustrates two Florentine embroideries of the fifteenth century, part of a John the Baptist set, designed by the famous painter Antonio del Pollaiuolo and still preserved in the Florence cathedral. The illustration makes clear the details of the technique, and especially the way in which the horizontal threads are couched. The scene on the left shows the birth of John the Baptist; the one on the right, the delivery of his head to Herodias. The illustration on



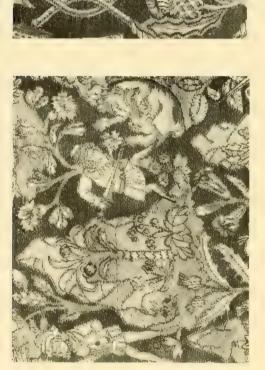


Plate XX - WOVEN (JACQUARD) REPRODUCTIONS OF NEEDLEWORK



Plate XXI—Fire screen panelled in Louis XIV petit point

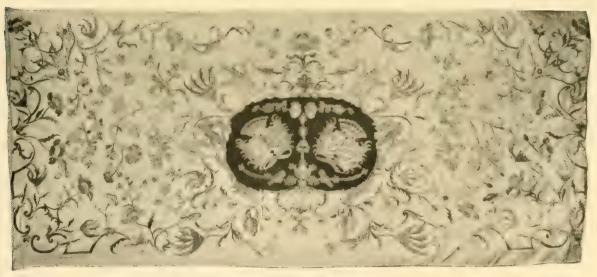


Plate XXII Seventeenth century Italian embroidered altar frontal

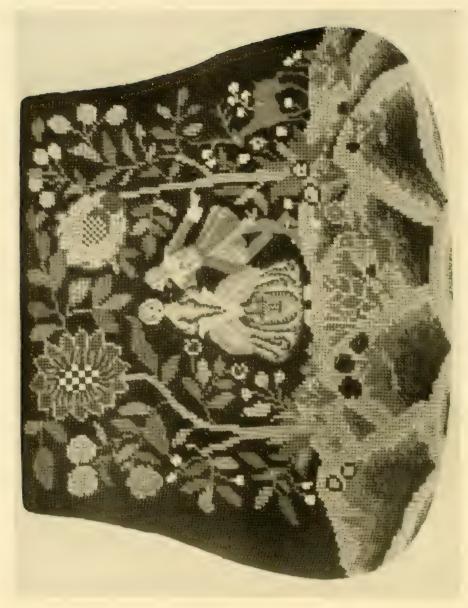
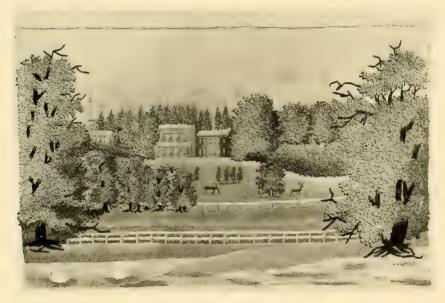


Plate XXIII MODERN REPRODUCTION OF OLD ENGLISH NEEDLEWORK Ground in gros point, personages in petit point



The Judgment of Paris



English Pearly Stumpwork

Plate XXIV—SEVENTEENTH CENTURY ENGLISH STUMPWORK



Plate XXV Furniture covering designed and embroidered by an Englishwoman

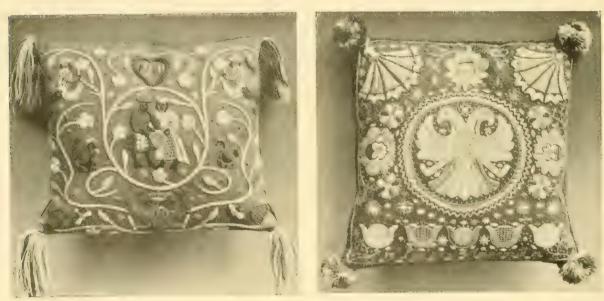


Plate XXVI—Pillows embroidered with wool. Designed and executed by Mrs. Bunting

Plate VII is of a Renaissance embroidery lent to the Cincinnati Museum by Mrs. Ida E. Nippert. The technique of the work is worthy of all praise, and the design is interesting. The Virgin, with unicorn, sits in the closed garden (ortus conclusus), while the Angel Gabriel, with four dogs on leash (Mercy, Peace, Justice and Truth), blows his horn outside and the prophet in the distance announces Ecce Virgo concipiet, the whole story being announced in the Latin captions. The portraiture of the Virgin and saints in the frieze above is of extraordinary merit. A Spanish Renaissance armorial appliqué embroidery is illustrated on Plate XXVIII.

ENGLISH RENAISSANCE AND LATER

Plate VIII illustrates English picture embroideries of the last half of the sixteenth century, the upper one from the collection of the Corporation of Maidstone, the lower one a petit point in the Metropolitan Museum. The upper one is interesting though crude and represents the Triumph of Protestantism, Henry VIII being seated in the middle with his foot on the neck of the Pope, whilst Edward VI stands on the left and Elizabeth on the right. On the extreme left is Mary pictured as the Papist Queen. The subject of the lower embroidery on Plate VIII has been variously identified but seems to me to be probably Philip II of Spain and his wife, Queen Mary of England.

An English synonym of worsted yarns used in embroidery is crewels (Plate IX). An excellent reproduction of old English crewel work is shown on Plate X. The bell pulls in the Chinese Chippendale style on Plate XV are also modern reproductions. I had hoped also to illustrate a modern reproduction of one of the famous Hatton Garden set of crewel draperies but was disappointed. There are six of these draperies 7 feet 9 inches high by 4 feet wide, each named after the animal pictured at the bottom. They were made in the last half of the seventeenth century and have great dignity because of the architectural background of columns and arches, and great grace because of the birds and floriation. The canvas ground is completely hidden by the coloured wool embroidery. When these precious embroideries were discovered a few years ago, they had been hidden for generations behind an accumulation of wall papers.

Excellent modern reproductions of old English petit point are those on Plates XVI and XVIII, the former enriched with silver



Hand embroidery in silk on sateen



Machine embroidery in metal appliqué on velour

Plate XXVII—ART EMBROIDERIES MADE IN AMERICA



Plate XXVIII—SPANISH APPLIQUÉ WORK OF THE SIXTEENTH CENTURY



Plate XXIX SIXTEENTH CENTURY SPANISH CHASUBLE Gold picture embroidery on velvet



Plate XXX RENAISSANCE APPLIQUÉ EMBROIDERY ON DAMASK Made by hand in America

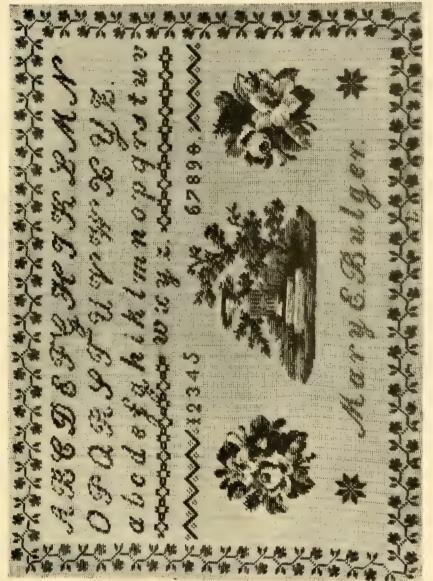


Plate XXXI MARY E. BULGER'S SAMPLER



Plate XXXII—EMBROIDERY FROM INDIA Ancient Chumba work, alike on both sides

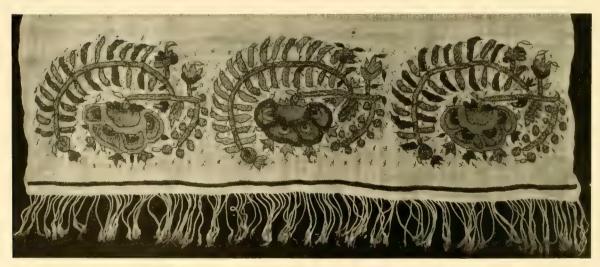


Plate XXXIII--DECORATED BULGARIAN SCARF

wire and showing Saint Peter with his keys, whilst the cock that crowed thrice perches on the column behind him. The latter is a bench cover in *petit point* on *gros point*, and in the English Chinese style of the eighteenth century. An English petit point of the seventeenth century is illustrated on Plate XIX.

The jacquard woven reproductions of old embroideries on Plate XX are not mere imitations but have a technical merit of their own, less undoubtedly than that of the needle, but still interesting. The one in the upper left corner is after an Elizabethan Gothic original; the one in the upper right corner shows a German bear hunt; the lower two are crewel reproductions, the left one on silk.

AMERICAN, EAST INDIAN AND CHINESE

Among the best executed art embroideries made in America are those illustrated on Plate XXVII. The one above is hand work in silk on sateen; the one below, bonnaz work in metal appliqué on velours. Plate XXV shows a Renaissance embroidery made by hand, also in America. Plate XVII shows a Chinese *shou* or monogram embroidered on velours by the bonnaz machine with its artful trail of V's.

Plate XXXI illustrates one of those samplers the making of which taught so many of our fair Colonial forebears to write and spell and draw. The lady responsible for this one signs herself Mary E. Bulger. If the sampler habit were revived, it would do more for the art of embroidery than can in any other way be accomplished.

India (Plates XXXII and XXXV) has long been famous for the silk and cotton embroideries that are part of the costume of almost every native. The most famous are those of Kashmir. Excellent in design and workmanship are the *phulkaries* from the Punjab and the Hazara frontier. The colours of the Cutch *phulkaries* are particularly attractive. The tinsel embroidered stuffs of Delhi, Agra and Madras are used for gowns, draperies, bed and table covers, cushion and pillow covers. Most Cashmere (Kashmir) shawls are embroideries in wool. Rugs richly embroidered with gold and silver are made at Benares and Murshidabad.

The Chinese (Plate XXXVI) are perhaps the most labourious and elaborate hand embroiderers, principally in silk combined with gold and silver tinsel. Sometimes the figures of men, horses and dragons are outlined in gold cord and filled up with shaded silk. The

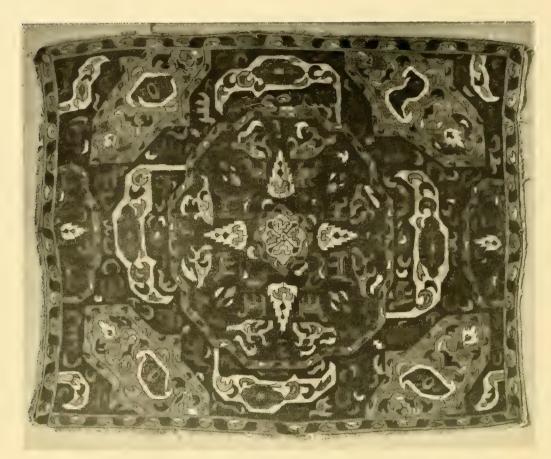


Plate XXXIV- SIXTEENTH CENTURY EMBROIDERED PERSIAN COVER Patterned like a rug of the period



Plate XXXV A SIND BAG With tiny mirrors appliqué

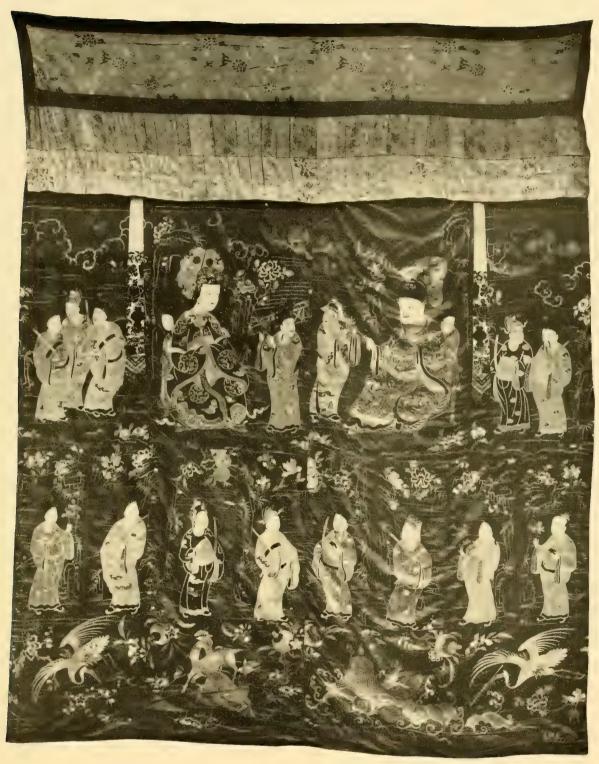


Plate XXXVI—CHINESE EIGHTEENTH CENTURY EMBROIDERY Picturing the emperor Kien-lung with his empress and their court

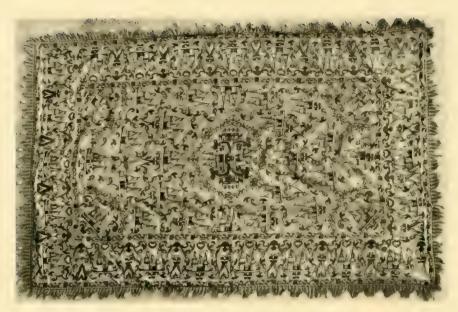


Plate XXXVII Turkish embroidered cover

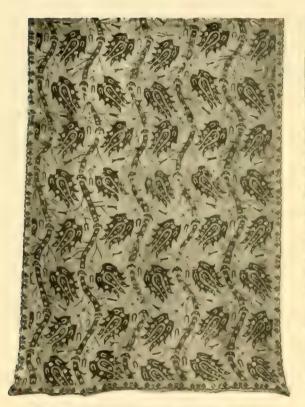


Plate XXXVIII—Turkish embroidery of the eighteenth century

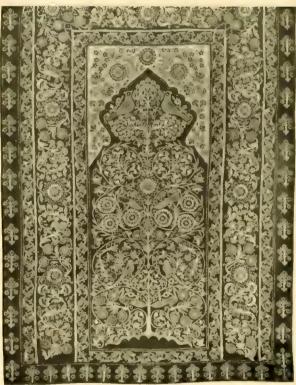


Plate XXXIX Persian embroidered rug of the nineteenth century



Plate XI. COLONIAL LATE SEVENTEENTH CENTURY BEDROOM WITH EMBROIDERED DRAPERIES OF THE PERIOD In the Brooklyn Museum

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Persians (Plate XXXIX), Turks (Plate XXXVIII) and Hindoos (Plates XXXII, XXXV) sometimes use beads, spangles, coins, pearls and even precious stones to heighten the effect. Sometimes feathers, nuts, pieces of fur, the skins of serpents, the claws and teeth of animals are also added.

TOOLS AND STITCHES

The tools of the hand embroiderer are very simple; needles to draw the different kinds and sizes of threads through the work, a frame to hold the material, and scissors to cut the thread. A stitch or point is the thread left on the surface after each ply of the needle. The most common forms of canvas stitch are cross stitch, tent stitch, Gobelin stitch, Irish stitch, plait stitch. Crewel stitch is a diagonal stitch used in outlining. Some of the other principal stitches are chain or tambour, herringbone, buttonhole, feather, rope, satin, darning and running stitch. About the twelfth century the modelling and padding of figures became common, i. e., embroidery was made by sewing onto as well as into the material. Hence we have the couching stitch, when one thread is sewed on with another, and appliqué work, when pieces of cloth are sewed on (Plates XVIII, XXVII); to give relief to the appliqué, the figures are often padded, as on Plate VII.

Credit for illustrations: Plate V, Karl G. Baker; Plate VII, the Cincinnati Museum; Plates VIII b, IX, XI, XIV, XIX, XXIV, XXVIII, XXIX, XXXI, XXXIV, AXXVI to XXXIX, the Metropolitan Museum; Plates X, XV, XVI, XVIII, XXVII, Arthur H. Lee & Sons; Plates XII, XXII, Mrs. James W. Alexander; Plates XVII, XX, XXX, B. Saubiac & Son; Plates XXXII, XXXIII, XXXV, M. J. Bhumgara; Plate XL, Brooklyn Museum of Arts and Sciences

CHAPTER VII

CARPETS AND RUGS

Hand-Made Spanish, English, Axminster, Savonnerie, American, Aubusson Tapestry

Just as tapestries are the fundamental wall covering, so pile rugs are the fundamental floor covering. Just as the horizontal ribs and vertical wefts and hatchings of the former, lock decoratively into the fundamental lines of the architecture of rooms, so the surface of the latter is solid and agreeable beneath the foot, because the pile swallows up instead of reflecting the light, and consequently seems to advance to meet the foot, more obviously than would any other kind of surface.

However, fundamental fitness does not always govern the actions of men. Propinquity is apt to exercise an amount of influence not always appreciated by philosophers and historians. So that we must not be surprised to find pile rugs hanging on the walls of Persia and central Asia, where the weaving of pile rugs originated; or tapestries lying on the floors of western Europe, where tapestry weaving reached its highest development.

In England a large rug is a carpet, and in the United States a large rug is often described as "of carpet size;" but commonly in the United States, the idea suggested by the word carpet is of a floor covering sewed together out of strips of carpeting twenty-seven inches wide, which conceals the whole of the floor and is, as a rule, tacked to it.

Until the last half of the eighteenth century the floor idea and the large idea were not uppermost in the word carpet. Chambers's Encyclopædia defines carpet as "a sort of covering worked either with needle or a loom, to be spread on a *table* or *trunk*, or *estrade*, or even a *passage* or *floor;*" estrade being an old word for daïs or raised platform. Indeed, the *table* use of the word has survived in the phrase

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"on the carpet," that, like the French, "sur le tapis," means not on the floor but on the table; whilst the ancient floor use of the word is seen in "knight of the carpet," so called because dubbed not on the field of battle, but on the carpet or cloth usually spread before the throne or estrade of the sovereign or lord in the sixteenth century. Also in olden time when servants were summoned before the master for reprimand, they were said to "walk on the carpet."

SPANISH

In the fifteenth century, in Italy, France, Flanders and Germany, as is shown by the picture paintings and the picture tapestries of the period, Oriental pile rugs and Occidental flat tapestry rugs, as well as Occidental flat rugs of the ingrain type, were all in use. It is doubtful whether pile rugs were made in western Europe before the sixteenth century, except in southern Spain and perhaps Sicily, where the weaving of pile rugs in the Oriental fashion had been introduced by the Mohammedans. That Spain produced pile rugs before the twelfth century, is indicated by the following lines of a mediæval Latin poet quoted by Michel from Méril:

Tunc operosa suis Hispana tapetia villis, Hine rubras, virides inde ferunt species, which translated, reads:

Then Spanish carpets, with their elaborate pile, Bear patterns that here are red and there are green.

The Spanish origin of carpets, as far as England is concerned, is suggested by the contempt with which the ancient historian Matthew Paris speaks of their importation by the Spanish ambassadors who in the thirteenth century arranged the marriage of Eleanor of Castile to Edward eldest son of Henry III. He says that when Eleanor arrived at Westminster she found the floors of her apartments carpeted after the fashion of her own country. This annoyed the citizens of London, who ridiculed the Spanish luxury and emphasised the fact that while the lodgings of the ambassadors at the Temple were hung with silk and tapestry, and even the floors covered with splendid cloths, their retinue was vulgar and disorderly and had mostly mules instead of horses. In the fourteenth century, a few carpets were made at Ramsey in Huntingdonshire, but mainly for churches. Whilst parlors were occasionally carpeted, the poets of the period sneer at them as "tapets of Spayne" laid down for "pompe

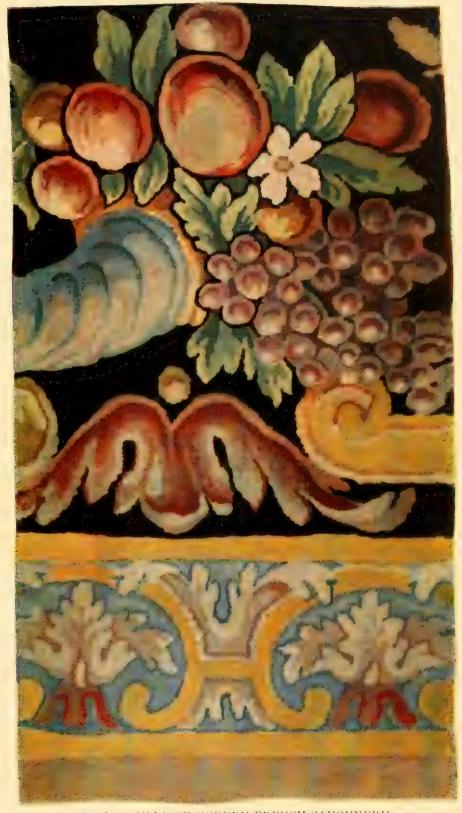


Plate I SAMPLE OF MODERN FRENCH SAVONNERIE.
To show colour, design and texture



Plate II SAVONNERIE RUG OF THE SEVENTEENTH CENTURY

and pryde." A rare departure from custom is the bedroom mentioned in the "Story of Thebes," the floor of which was covered with cloth of gold. Only in the fifteenth century did carpets become general in the private rooms of the rich, and on the daïs or throne platform of great halls. The main floor of great halls, outside this daïs, still employed rushes or straw, or grass, often upon the soil itself, without wooden or tile flooring, and was appropriately called the marsh, because of its usually filthy condition.

Of ancient Spanish pile carpets, one of the most remarkable is in the New York Metropolitan Museum lent by Mr. C. F. Williams. It bears three times repeated as a medallion in the field, the coat-ofarms of the Henriques family, hereditary admirals of Spain, which explains the four anchors. The border consists of two main bands with a stripe outside. The inner band is covered with an allover lacelike repeat. The outer band is divided into compartments carrying as the main motif, bears at the ends; and at the sides, two bears under a tree, two swans facing each other, a wild man dancing with bears, a lady wearing a farthingale of the extreme balloon type, wild boars, etc. Across the ends of the carpet are extra bands composed of details borrowed from the outer band of the border. The dominant colours are yellow and blue, with red to heighten and cream to soften the contrasts. The pattern of the field, with its tiny octagons, suggests tiled flooring. While this carpet is attributed to the first half of the fifteenth century, it would appear to me to be of the sixteenth.

I also doubt the thirteenth or fourteenth century origin sometimes attributed to one of the Spanish carpets in the Berlin Kaiser Friedrich Museum, while admitting that it probably does date from the fifteenth and is perhaps the oldest still preserved. The field bears a small repeat, with two medallions carrying coats-of-arms in the middle. The two main borders of the border bear quaint humans, horses and birds, resembling closely those that occur in Daghestan rugs.

The most famous of the ancient Spanish carpet factories was that of Alcazar, which existed as late as the middle of the sixteenth century. According to the tradition believed by Spanish carpet weavers of today, it was of Moorish origin, and after the conquest of the Moors was carried on by Moorish slaves under Christian management. When the Emperor Charles V died at Yuste in 1558, he left four Turkey carpets and four of Alcazar. The Victoria and Albert



Plate HI SAVONNERIE SCREEN PANELS OF THE SEVENTEENTH CENTURY

Museum in London contains a splendid collection of Alcazar and other Spanish pile carpets of the fifteenth and sixteenth centuries.

EARLY ENGLISH

While I am postponing the discussion of embroidered carpets until Chapter VIII, because of the fact that they are to be classed with shuttle-made goods, being constructed on a shuttle-woven ground, I think it pertinent to introduce here what Lady Sussex, one of Vandyke's sitters, said in the first half of the seventeenth century about Turkey work, which is an imitation of Oriental pile rugs, made by threading worsted yarn through a coarse cloth of open texture, then knotting and cutting. This Turkey work was a home industry requiring less skill than hand-knotted carpets, that were either imported or made in factories at Wilton, Kidderminster and Axminster. Lady Sussex's remarks illustrate the varied use of carpets, for beds and windows as well as under "fote."

"The carpet truly is a good on * * * if I can have that and the other for forty ponde or a littell more I would by them, and woulde bee very fine for a bede but onlie if one may have a very good peniworth. For the carpets if the gronde be very dole and the flower or works in them not of very plesent color i doubt the will be to dole for to suet with my hanginges and chers. * * * Concerning the choice of a small carpet: If it will not sarve for a windo it will sarve for a fote carpet."

While it is possible, even probable, that pile carpets may have been made in England in the fifteenth and sixteenth centuries, we have no positive evidence to prove it. The carpet belonging to Lord Verulam that bears in the centre a large medallion with the royal arms of England, the letters E R (Elizabeth Regina), and the date 1570, may have been made at Norwich by weavers from Spain or with Spanish training; but it is equally probable that it was woven in Spain on order from England. It bears the arms of the borough of Ipswich and of the family of Harbottle.

Equally Spanish in style is the carpet in the Victoria and Albert Museum with the inscription: "Feare God and Keep His Commandments, made in the yeare 1603." It bears the arms of Sir Edward Apsley and his wife Elizabeth Elmes and may also have been made in England. It resembles closely the carpet that appears in the painting by Marc Gheeraedts, in the National Portrait Gallery of

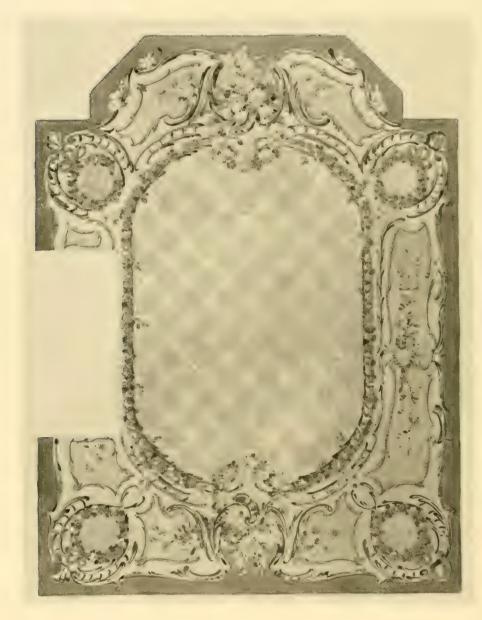


Plate IV LOUIS XV TAPPESTRY RUG OF IRREGULAR SHAPE Made in America

London, of the conference at Old Somerset House in 1604, of a number of English and Spanish plenipotentiaries.

ENGLISH EIGHTEENTH CENTURY

Towards the end of the seventeenth century we begin to get definite evidence of carpet weaving in England. In 1701, King William granted a charter to immigrants from France settled at Wilton, to manufacture carpets after the French style (savonnerie), and the charter was confirmed in 1706 and 1725. The special patron of the industry was the ninth Earl of Pembroke, who persuaded many of the skilled French and Flemish weavers to come to England.

A few years later, in 1751, Père Norbert, who naturalised himself as an Englishman and changed his name to Peter Parisot, started a factory and school at Fulham. In 1753 he published "An account of the new manufactory of tapestry after the manner of that at the Gobelins, and of carpets after the manner of that at Chaillot (savonnerie) now undertaken at Fulham by Mr. Peter Parisot." After describing the Chaillot factory as "almost altogether employed in making carpets and other furniture for the French King's Palaces," he tells the story of two Chaillot weavers who came to London in 1750, and finding themselves in difficulties, applied to him. He realised that it was necessary to procure as patron "some person of Fashion who actuated by the Motive of Public-spiritedness might be both able and willing to Sacrifice a Sum of Money." The Duke of Cumberland came forward with funds, and work begun at Westminster was continued at Paddington. The first carpet completed was presented by the Duke to the Princess Dowager of Wales. Later, other weavers were brought over and the plant was moved from Paddington to Fulham. The French government became disturbed and tried to check the emigration of weavers. Orders were given to intercept all letters from "Padington or Kensington, addressed to workmen or other persons of humble station in the quarter of the Gobelins or the Savonnerie," as well as all letters to "M. Parizot in Foulleme Manufactory à London." In spite of the patronage of His Royal Highness the Duke of Cumberland, and of the fact that the factory employed one hundred workmen, the industry failed to become established and in 1755 Parisot was obliged to sell at auction the entire works of the Fulham Manufactory, among which were: Eight seats for stools, manner of Chaillot; a carpet, manner of

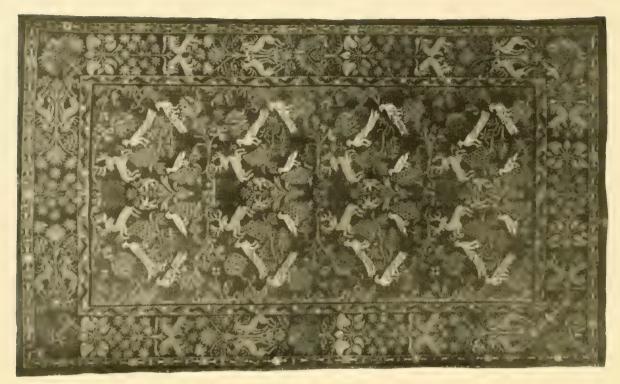


Plate VI-TAPESTRY RUG MADE IN AMERICA Renaissance style, with Byzantine field, coarse texture



Reverse side



Face side

Plate V SECTION OF A TAPESTRY RUG Full size, nine rubs to the inch

Chaillot, seven feet six inches by five feet six inches; a pattern for a screen or French chair, with a vase of flowers, in the manner of Chaillot; a beautiful rich pattern for a screen, two Chinese figures, flower pots and trees, Chaillot; a picture of the King of France, most exquisitely done, in the manner of Chaillot in a frame and glass; a rich and beautiful carpet eleven feet by eight feet six inches, etc., etc.

In 1913 there was sold at Christie's in London a savonnerie panel bearing the signature of Parisot.

AXMINSTER

The year of Parisot's failure, a Mr. Whitty established the industry at Wilton, and the Annual Register of 1759 says that:

"Six carpets made by Mr. Whitty of Axminster in Devonshire, and two others made by Mr. Jesser of Froome in Somersetshire, all on the principle of Turkey carpets, have been produced to the Society for the Encouragement of Arts, Manufactures and Commerce, in consequence of the premiums proposed by the said society for making such carpets, and proper judges being appointed to examine the same, gave it as their opinion that all the carpets produced were made in the manner of Turkey carpets, but much superior to them in beauty and goodness. The largest of the carpets produced is twenty-six feet six inches by seventeen feet six inches."

The transactions of the same society for 1783 state that, as a result of the premiums, the manufacture of "Turkey carpets is now established in different parts of the Kingdom, and brought to a degree of elegance and beauty which the Turkey carpets never attained."

Whilst these English factories produced carpets in both Oriental and European designs, the latter were preferred by the great architect, Robert Adam, and many of his contemporaries, and as in France it became common to base the floor decoration on that of the ceiling, reproducing in the carpet, architectural mouldings and details of plaster ornament. For example, in the drawing room of Osterly, the elaborate Etruscan ornament of the ceiling is repeated by Robert Adam in the carpet, and in his design for the tribune at Strawberry Hill, the centre of the carpet repeats the coloured glass roof overhead.

The making of hand-knotted pile rugs has survived in England at Wilton only, but the rugs produced are called Axminster. In Ireland hand-knotted rugs are made at Donegal, and as Donegal rugs have attracted attention in the United States and Great Britain.



Plate VII EIGHTEENTH CENTURY TAPESTRY RUG-Made at the Spanish works in Madrid

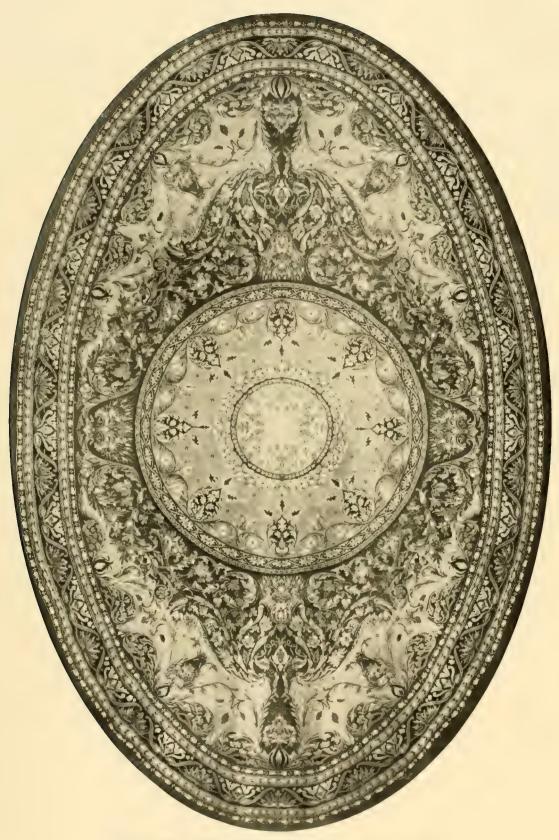
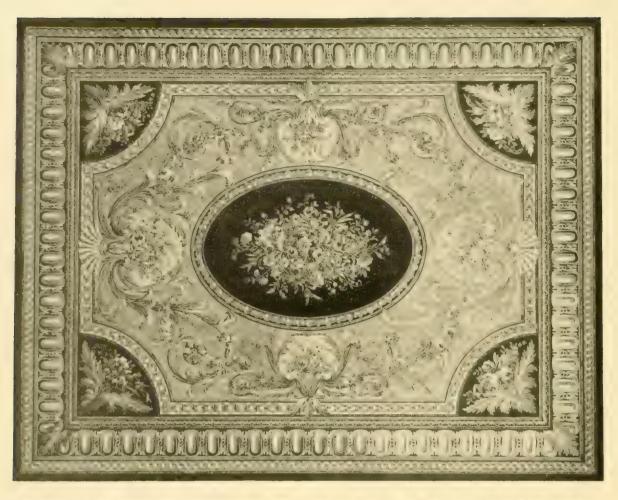


Plate VIII OVAL HAND-TUFTED RUG MADE IN AMERICA For one of the partners of Marshall Field & Co.



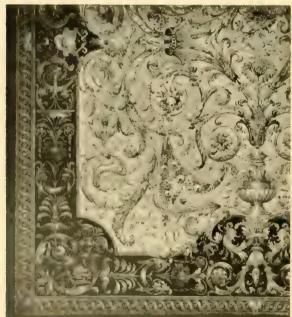




Plate IX—Above, a modern Aubusson tapestry rug designed in America for an ancient Colonial mansion; below, sections of modern Italian Renaissance, and Louis XIV Savonnerie

SAVONNERIE

The finest hand-knotted European pile carpets are the French savonneries (Plates I and II) that get their name from the soapworks (savon is French for soap) at Chaillot in Paris, where the industry was established three centuries ago by Pierre Dupont and Simon Lourdet. The story of the foundation is told in Dupont's Stromatourgic ou de l'Excellence de la manufacture des tapis dits de Turquie, published in Paris in 1632.

Dupont had in 1604 been established in the Louvre by Henri IV, and Lourdet was his pupil. Dupont's success on a small scale had been of such an encouraging nature that it was promptly decided to increase the size of the plant largely, but the death of the King in 1610 postponed the execution of Dupont's ambitions. Dupont's claim, moreover, to have been the first to propose the establishment of the industry in France, was successfully disputed by Jehan Fortier, whose proposition made in 1603 had been approved by a royal commission in 1604, but had, for some unknown reason, stopped there.

The building near Chaillot that had been leased by Henri IV in order to establish the manufacture of soap, was in 1615 turned into an orphan asylum through the munificence of Henri IV's widow, Marie de Médicis, mother of Louis XIII. In 1626 the property was purchased, and provision made for enlarging the quarters of Simon Lourdet, who had already been making carpets there in a small way. In 1627 a royal decree gave to Dupont and Lourdet in association, the right to make carpets at the Savonnerie, on condition that they train one hundred of the orphans as six-year apprentices. The partners, however, quarrelled and Dupont continued his work at the Louvre, without sharing actively in the enterprise at Chaillot, that was finally awarded to Lourdet alone.

Under Colbert the industry at the Savonnerie was encouraged, and in 1668 Philip Lourdet, who had succeeded his father, began the celebrated set of carpets for the grand gallery of the Louvre, the cartoons for which had been painted at the Gobelins by Baudrin, Yvart and Francart. The set consisted of ninety-two pieces (one of which is illustrated in Plate II) ornamented with medallions, coats-of-arms, trophies, verdure, panel flowers. Two of the pieces did not reach the Louvre, being sent as a present to the King of Siam in 1685. From 1664 to 1683, the widow Lourdet, who succeeded her husband as director of the establishment in 1671, received 280,591



Plate X DINING-ROOM AT MT, VERNON, VIRGINIA Aubusson tapestry rug on floor

livres as payment for these carpets only, in the execution of which the Dupont factory at the Louvre collaborated. In 1672 the Louvre factory was moved to the Savonnerie by Louis Dupont, who had inherited his father's privileges, and in 1672 he is described as director of the Savonnerie. Besides carpets, there were also made in both factories furniture coverings, screen panels (Plate III) and portières, all in savonnerie.

During the eighteenth century the output of the Savonnerie was important, especially in furniture coverings like the one on the bench till recently on exhibition at the Metropolitan Museum in the Morgan Loan Collection, and in portraits like that of the Emperor Joseph II in the Hoentschel Collection at the same museum. The Empire, being a period especially fond of velvety and shiny surfaces, restored to the Savonnerie its seventeenth century prosperity, and supplied it with designs by Percier and Fontaine, and by Lagrenée. In 1826 the plant was moved to the Gobelins and has since been operated there on a small scale, serving principally by the perfection of its work, as an inspiration to the makers of hand-knotted rugs at Aubusson (where the industry was established in 1740) and other places in France, the rugs from which are also called savonneries, having borrowed the name from the Chaillot product. Plate I shows part of a modern Aubusson savonnerie in colour.

Exceedingly interesting is the account of a visit made by two young Dutchmen to the Louvre factory in the time of Louis Dupont. They wrote: "We saw, on entering, a kind of tapestry that he called fashion of Turkey, because it resembles it, but is much more beautiful. * * He showed us several portraits that he had made, among others of the 'Adoration of the Kings.' * * * The father of this excellent workman brought the secret from Persia where he passed several years, and it was he who established the manufacture at the Savonnerie."

AMERICAN

Hand-knotted rugs are made in both Germany and Austria, but of quality inferior to the French savonneries. No hand-knotted rugs are made today in the United States. The price of labor, even of young girls, makes it impossible to conduct the industry here successfully. The plant established in Milwaukee about thirty years ago, and later moved to New York, was in operation for twenty years

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practically without profit. A branch factory established at Elizabethport, N. J., by the proprietors of the English factory in Wilton was in operation five years.

AUBUSSON TAPESTRY RUGS

For over a century the little mountain city of Aubusson in France, two hundred and fifty miles south of Paris, has been the commercial centre of the weaving of tapestries for the floor, as well as tapestries for furniture and for the wall. One result of this is that the name "Aubusson rugs" has become attached to tapestry rugs, and they are commonly called that even when woven elsewhere. In texture, tapestry rugs are exactly like wall tapestries, but coarser and heavier and of simpler design. Until the eighteenth century, they were called "Brussels rugs" because made mostly in Brussels, and the machine imitation of them is still known as "brussels" carpeting and rugs. Having a ribbed surface that is comparatively flat, they are not as suitable as pile rugs for large high rooms; but for many low rooms, they are even to be preferred because they do not swallow up the light, and do not decrease the apparent height of a room by seeming to rise to meet the foot. The lining should be heavy.

Tapestry rugs are made just like wall tapestries, and probably have been woven in most tapestry factories, even those established primarily for picture weaving. There have been many important tapestry rugs woven in the United States, mostly in French designs like Plate IV, but a few like Plate VI, in designs of varied character, even Art Nouveau. I approve particularly of tapestry woven in coarsest texture, far coarser than that commonly employed at Aubusson, and in mille fleur or other detached floral patterns. For illustration of tapestry rug texture see Plate V. A Spanish tapestry rug is illustrated on Plate VII.

One thing that brings tapestry rugs vividly before thousands of Americans is the fact that there are two at Mt. Vernon, one in the dining room, and one in the library, made in Aubusson, the latter illustrated on Plate X.

Credit for illustrations: Plates II, III, the French Government; Plate IV, Wm. Baumgarten & Co.; Plates V, VIII, X, the Persian Rug Manufactory; Plate VI, the Herter Looms.

CHAPTER VIII

CARPETS AND RUGS

EUROPEAN AND AMERICAN MACHINE-MADE

In Chapter VII I discussed European and American hand-knotted and tapestry-woven floor-coverings—that is to say, those made without the use of a shuttle. In Chapter VIII I shall confine myself to shuttle-made goods—to those in which a shuttle loom is used to prepare the body fabric as in cross-stitch, hooked, and other embroidered rugs; or in which a shuttle loom is used to prepare a special furry weft, as in chenille axminster; or in which the whole process takes place on a shuttle loom, as in ingrains, brussels, wiltons, tapestries and velvets.

The distinction between looms with a shuttle and looms without a shuttle, is fundamental. The shuttle marks a great advance in the machine direction. The invention of the shuttle—which is nothing more nor less than a pointed box or carriage to carry the bobbin and enable it to be easily thrown or knocked through the entire width of the warp shed—increased speed of weaving at the expense of control of the bobbin and of weft threads. But this was more than made up for by inventions that gave increased control over the warp threads. So that on a shuttle loom the tendency is to produce by manipulation of the warp the effects that on the more primitive looms are produced by manipulation of the weft. (See Development of the Loom in Chapter I.)

The ancient Egyptians made pile fabrics in which the pile was a weft pile looped around pairs of warps. (See the Weave of Velvets in Chapter I.) This is the most primitive form of pile weaving, even more primitive than hand-knotting to pairs of warps with short pieces of yarn, as in Oriental rugs; or than hand-knotting to single warps around a short knife-bearing rod, as in savonneries. In all of these the pile is held in place by warp threads. Brussels and wiltons, on the

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contrary, and the tapestry and velvet imitations of them, have a warp pile looped around weft threads—a pile formed like the pile of silk velvets by looping warp threads over wires and under wefts.

CHENILLE AXMINSTER AND SMYRNA

The most aristocratic of the shuttle-made carpets and rugs is the chenille axminster, sometimes called Scotch axminster because it is said to have been first successfully produced in Scotland and patented in Great Britain in 1839. The finest grades are quite as expensive as Oriental rugs of similar pattern and texture. The great success of chenille axminster rugs is due to the fact that single ones can be made to order quickly in one piece (seamless) and in all sizes and shapes, provided the field be plain or mottled or a small repeat. Especially successful have been those in two tones (sometimes three or four) of one colour. As repeats grow large and complicated and colours numerous, the cost of making chenille axminsters in small quantities becomes prohibitive. The process is a double one that requires two looms, one to produce the strips of chenille, the other to make the body, and with linen warps lock the chenille strips into it.

Plate II shows the chenille in the various stages. In a, it is a flat cloth, just as it comes from the first loom, except that it has been cut to make clear how it is divided into strips. In b, it has been steamed and shaped so that the fur points all in one direction, instead of in two opposite directions, as when flat. In c, the finished fabric appears with chenille strips locked into place; but with several removed in order to reveal the linen warps that do the locking. In the finer chenille axminsters, the body as well as the chenille is almost entirely of wool. In a, the cloth is shown at right angles to the way it is woven. The loom on which it is woven is warped with groups of from four to six cotton or linen strings (one group for each strip there is to be of this chenille) and the coarse worsted weft that is later to form the pile is inserted by the weaver from shuttles, one for each colour that is to appear in the design. Of course, all the strips in a single weaving are necessarily exactly alike, and the process becomes economical in proportion as many strips of the same kind are required. Of course, the length of each of the strips is equal to the width of the rug, and each strip represents the exact succession of colours that occurs in the width.

 ${f A}$ few years ago one of the most popular rugs on the market was



Plate I—SECTION OF AMERICAN-MADE CHENILLE AXMINSTER RUG In four tones

DECORATIVE TEXTILES

the smyrna, named after the city in Asia Minor from which many Oriental rugs are shipped. However, these smyrna rugs are not Oriental at all, but made like chenille axminsters except that the chenille is very coarse and heavy and is inserted in the body while still flat, so that the fur points down as well as up, and the back of the rug is just like the face. Retail salesmen used to say to visitors to whom they were trying to sell smyrna rugs: "When it is worn out on the face, turn it over and wear the back out." Of course, this remark was misleading, for the back of a smyrna rug wears out nearly as fast as the face, and by the time the face pulls loose, the back is gone also. The heel that scrapes the face also causes the back to scrape against the floor. But the stain that soils one side does not necessarily soil the other; and reversing the rug occasionally keeps the colours fresh longer. Smyrna rugs in Kazak, Guenje and other Oriental patterns, have great merit and are comparatively inexpensive. I recommend them for use in rooms where Mission furniture is suitable, and in rustic and modern homes where extreme delicacy of tone and texture gradation is not desired.

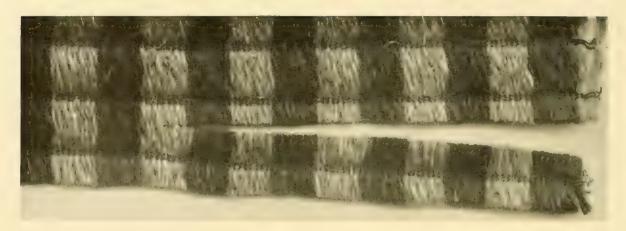
OLD-FASHIONED INGRAIN

Fifty years ago ingrain carpeting "all wool and a vard wide" was the pride of American homes. The patterns Eagle Head, Henry Clay and Martha Washington not only appealed patriotically but pleased decoratively. These patterns are illustrated opposite page 82 of my book entitled "Home Furnishing," and can still be purchased for use in Colonial rooms and old-fashioned chambers. When properly laid, ingrain carpet is very durable (I remember some in my grandfather's parlour that had resisted the feet of a large family for over thirty years, and was still in fair condition). It also looks very well in an appropriate environment—with mahogany or black walnut furniture and flat, smooth draperies. Plain ingrain (in solid colour) is still used even in city homes as a background for small rugs where floors are rough and badly finished; figured ingrains are confined for the most part to the rural districts, and to the "stage carpets" of theatrical companies that seek their revenue in small towns. Nevertheless, ingrains (called Kidderminster in England from the city that is the most important centre of the manufacture) have been popular for centuries, and can be identified in picture tapestries of the Gothic period, when the only other floor coverings were "real tapestry" rugs

and rare and expensive Oriental rugs. Of course, ingrains have no pile like Oriental rugs, and consequently, are less luxurious to the foot. They are the product of the shuttle that corresponds most closely to real tapestries, and have a flat instead of a pile surface, but coarse instead of fine wefts. Plain ingrains are in weave almost like rag carpets, i. e. coarse wefts, with slender string warps that serve as binders and that are comparatively subordinate. Figured ingrains are double or treble cloths (two-ply or three-ply) bound together where warps and wefts from the upper cloth are woven into the lower, and vice versa.

The artistic possibilities of ingrain were largely developed by William Morris who did much to revive its use. He preferred the three-ply ingrain in which one of the cloths (webs) is always buried in the middle. Stage carpet illustrates the construction of two-ply ingrain very clearly, being almost entirely red on one side and almost entirely green on the other, with only a few small spots of the other colour showing through where it is necessary to bind the two cloths together by interweaving. The reason for stage carpet is that it can be used in one act as a red floor covering, and in the next act as a green covering, thus giving double service. Plate V is a full size reproduction, to show texture, of a small piece of two-ply ingrain carpeting. One of the two cloths consists of alternate red and black wefts, with alternate red and black warp binders; the other cloth consists of two white wefts treated as one, alternating with a green and a vellow weft treated as one, and held together by alternate white and vellow binders.

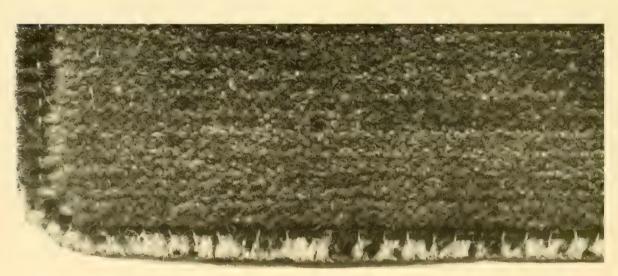
Where the carpeting is in two separate cloths, one is of plain red and black; the other plain white and green and yellow. The figures are formed by interchanging the positions of the warps and wefts, so that a portion of the upper cloth is woven as the lower, and vice versa. Where the two sets of cloths meet or pass through each other, they are firmly bound together, and in order that they may be firmly bound together into a durable structure, it is desirable that the points of intersection be frequent. Strong colours are dangerous in ingrains, usually "spotting or scratching," but when skilfully combined produce results that appeal to persons of large decorative experience and keen colour perception. A feature of the two-ply ingrain is that the colours on the back of the carpet exactly reverse those on the face.



(a) Weaving the flat strips



(b) These flat strips are then steamed and shaped into chenille cord



(c) This cord is then itself used as weft, and locked with linen warps into the solid back

Plate II—THE PROCESS OF MAKING CHENILLE RUGS

BRUSSELS AND WILTON

In the weaving of silk velvets as originated in China centuries ago, the warps that are to form the pile are looped over weft wires and under weft binders. Then the wires are withdrawn, leaving rows of uncut loops where the velvet is to be *uncut*, and cutting the loops where the surface is to be cut velvet. Brussels and wilton carpets and rugs represent the application to wool of the warp velvet method of weaving (see the Weave of Velvets in Chapter I). The application was made in both Flanders and France in the seventeenth century; in France under Louis XIV at Abbéville in 1667; in Flanders at Tournai, which became so famous for cut-pile carpeting as to give its name to it, a name that in Germany is still used for what we call wilton after the English town in which the industry was first established. Both in German and English speaking countries the uncut carpeting of this type is called brussels, presumably because of its resemblance to real tapestry of which Brussels was the chief centre of manufacture for so long. The French call brussels moquette bouclé, and wilton moquette velouté. As everybody knows, the standard width of most American carpeting-except ingrain and borders—is 27 inches. This is due to the fact that the width of the old Flemish ell formerly used in both the Netherlands and Great Britain to measure tapestries and other cloths, was 27 inches. In weaving carpeting, it was only natural to take the nearest round number that was convenient. A greater width was too difficult to weave by hand on a velvet loom. Only recently has it become practicable to weave wiltons up to 12/4 width (12/4 meaning 12/4 of a vard, just as 27 inches is 3/4 of a yard and 27-inch carpeting is known as 3/4 goods). That is why all brussels and wilton large rugs formerly, and most of them still, are sewed together out of carpeting, in other words are seamed. A famous example among seamed rugs is the one in the west parlour at Mt. Vernon, a characteristic Colonial residence that in 1860 was preserved and restored through the patriotic efforts of the Mt. Vernon Ladies' Association, to which we should all feel grateful for the opportunity to see George Washington's home in nearly the same condition as during his lifetime, some of the furniture being what was actually his; the rest with a few exceptions, appropriate and of the period. The rug to which I refer is said to have been made by order of Louis XVI for Washington, and then, as the President was not permitted to receive presents from

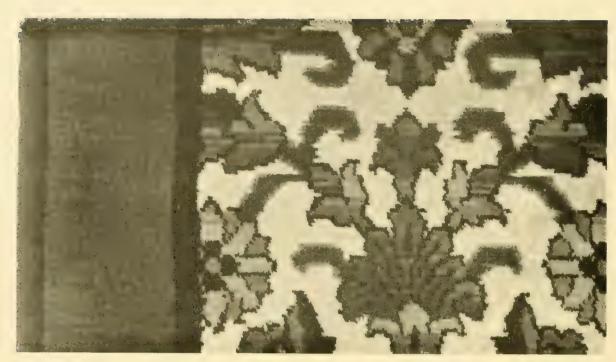


Plate III CHENILLE AXMINSTER MADE IN AMERICA To match a large Kermanshah rug



Plate IV - AMERICAN CHENILLE AXMINSTER Plain centre with Elizabethan border

foreign powers, to have been sold to Judge Jasper Yates of Lancaster, Pa., whose great-granddaughter presented it to the association in 1897. It is typically Empire and ugly in style, and consists of 27-inch widths of moquette velouté (wilton) sewed together to form a rug that on a dark green ground sprinkled with stars carries a huge centre medallion bearing the American eagle. The texture is very velvety and agreeable, and age has worn the pile down most pleasingly. Across each end is an eight-inch strip to match, evidently made at a later date, and of inferior material and dye.

In weaving brussels the worsted warp has as many "splits" as there are "points" across the fabric, and is divided into as many horizontal layers (from 2 to 6 but commonly 5) as there are frames at the end of the loom, each frame carrying bobbins of a single colour. In each split, one thread, and only one, is raised by the jacquard in preparation for each "shot," thus forming a horizontal layer that corresponds in colour to the points of that row of the design. A wire is then passed under this horizontal layer, which descends forming loops over the wire. Between the rows of loops are inserted weft threads to bind them to the body of the fabric. Wilton is made in the same way but the wire is oval to give a deeper loop and allow of closer packing, and has a knife at the end, which when withdrawn, cuts the loops, forming a velvet or *cut* pile. The cut surface of wilton swallows up much more light than the uncut surface of brussels, and consequently is much darker with the same worsted. This contrast is illustrated by the silk velvets that have part of the pattern cut, the rest uncut. Additional colours can be introduced into brussels and wilton by "planting" the frames, that is, breaking up one or more of them into "stripes," and having two colours instead of one in a frame. Of course, the original colour is omitted in the stripe that carries the additional one. Saxony brussels and saxony wilton differ from the others in texture, being coarser and less velvety in appearance, but more durable in use, because of the thread employed. brussels and wilton, the worsted thread consists of several fine strands loosely twisted together; in saxony, the thread is coarser and the strands unite to form a unit as in Oriental rugs.

TAPESTRY BRUSSELS AND WILTON VELVET

Of course, in brussels and wilton only one thread in each split shows on the surface. The others are buried in the body. In a five-

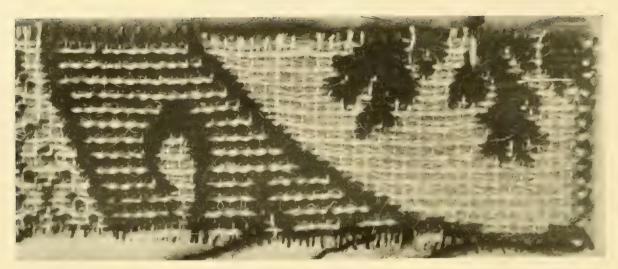


Plate V OLD-FASHIONED INGRAIN CARPETING

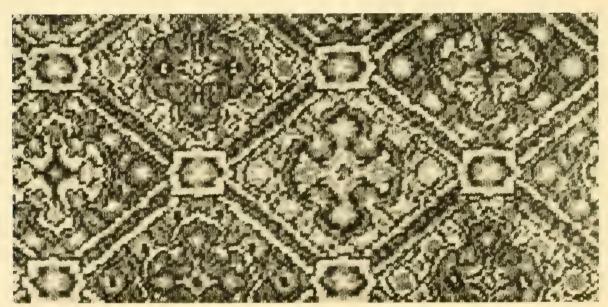


Plate VI VELVET CARPETING MADE IN NEW YORK

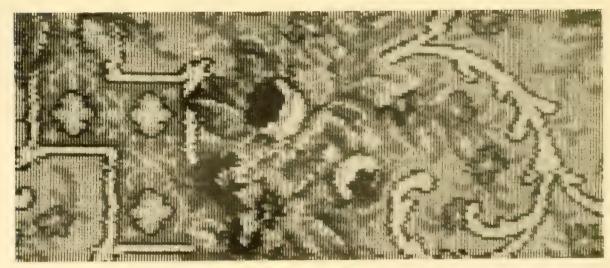


Plate VII - TAPESTRY CARPETING MADE IN NEW YORK

frame fabric, four-fifths of the worsted is useless as far as show is concerned, although it does help to make the stuff more elastic than a body entirely of jute and cotton. Tapestry brussels, patented in England in 1832, was invented by Richard Whytock to prevent this burying of worsted. There is only one frame, the threads of which are printed with the pattern before weaving, but with the pattern elongated so that the looping up merely restores it to normal shape. Characteristic of tapestry brussels is the tendency of the colours to run into each other and blur slightly. Wilton velvet bears the same relation to wilton that tapestry brussels does to brussels. In order to distinguish brussels from tapestry brussels, it is often called body brussels. Just as tapestry brussels and wilton velvet are cheap imitations of brussels and wilton, so now we have an even cheaper imitation of them, printed not before but after weaving, in other words piece-printed as contrasted with warp-printed. Rugs in both pieceprinted and warp-printed tapestry and velvet are commonly seamless.

SPOOL AXMINSTER

In brussels and wilton the number of colours that can be used is limited by the number of frames (never more than six frames, which limits the colours, even with "planting," to 12). In the printed imitations of brussels and wilton, the number of colours is limited by their tendency to "blur" and the impossibility of printing sharp line effects on a pile surface, or a surface that is to become pile. In spool axminster there is no such limitation. Each "point" is an individual unit quite as much as in a hand-knotted rug, and the process is not a silk velvet process but an actual inserting of short pieces of yarn. Consequently spool axminster has always a cut pile, never the looped pile of brussels. Instead of frames, as in brussels, there are spools the width of the fabric, each with a series of short projecting tubes, one for each point of the design. Wound on the spool and projecting through the tubes, are worsted threads of the "saxony" type, corresponding in colour to the first row of points of the design. For the second row of points of the design, a second spool is prepared; a third spool for the third row; and so on until the repeat comes. These spools are then arranged in the loom in an endless chain, so that each projecting row of tufts is presented in turn just above the place where it is to be inserted in the body of the fabric. The tufts are seized by a row of nippers, drawn out to the proper length, and cut



Plate VIII—SPOOL AXMINSTER PICTURE RUG MADE IN NEW YORK



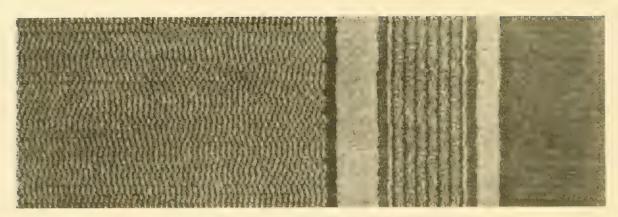
Plate IX SPOOL AXMINSTER CARPETING MADE IN NEW YORK

off. The nippers then bend down and place the tufts in position, one in each "split" of the warp. A shot of weft is next thrown across, partially binding the tufts in place. At this stage the tufts are straight, one end being in its final position, the other projecting at the back. These back ends are next bent, by a series of mechanical fingers, around the shot of weft, so that they take a U shape, and thus form a complete row of two-pointed tufts of pile. Another shot of weft binds them and the process is complete. Succeeding rows are added in the same way, a fresh spool being presented for each row of the pile.

At first sight, it seems strange that wilton should not be supplanted, at least for Oriental patterns, by spool axminster. The texture is softer and more Oriental and the back much more pliable, with less waste of material. But practical experience shows that the cost of preparing the spools and mounting the loom is so great, for the elaborate patterns the ability to accomplish which forms the special achievement, as to be prohibitive except in large quantities. Plate VIII illustrates the kind of thing at which the spool axminster loom is most successful, elaborate and complicated picture designs for which there is a market in hundreds, in other words which appeal to the multitude. Similar small rugs are made in wilton velvet, but less perfectly. Plate IX illustrates one of the most successful patterns in spool axminster carpeting, one of the kind where delicate shading gives the roundness of shapes that makes the flowers and other objects realistic, but which is objected to by those who maintain, like William Morris, that underfoot design should be flat.

SEHNA AXMINSTER

Until very recently, it seemed that the spool axminster process was the last word that could be uttered on the subject of weaving elaborately patterned carpets and rugs by machinery; but the sehna axminster loom, as I choose to call it in this article, though without the sanction of the manufacturers, has accomplished the impossible. It actually produces seamless rugs of all sizes, the pile of which is not looped around wefts, as in spool axminster, and in brussels and wilton and their imitations, but is tied around pairs of warps with the sehna knot exactly as in Oriental rugs. The process is interesting. Suffice it to say that the loom controls each point of the design with the jacquard; and makes the knot by manipulating the warps, some-



 $\begin{array}{cccc} {\rm Plate} & {\rm X-AMERICAN} & {\rm CHENHLE} & {\rm AXMINSTER} \\ & {\rm Mottled} & {\rm field} & {\rm with} & {\rm plain} & {\rm stripe} & {\rm border} \end{array}$

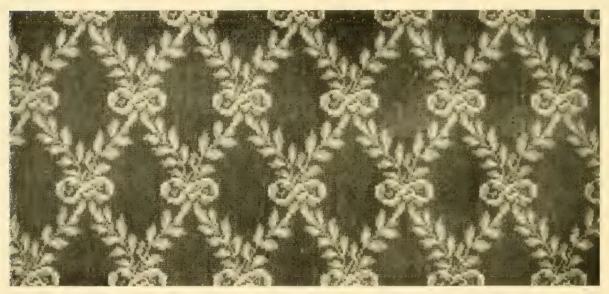


Plate XI- WILTON CARPETING MADE IN MASSACHUSETTS

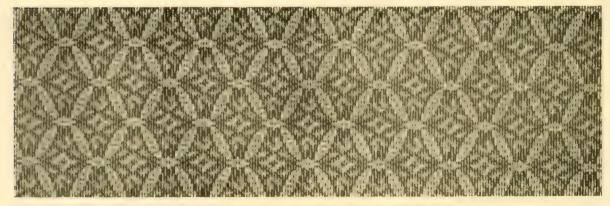


Plate XII BRUSSELS CARPETING MADE IN MASSACHUSETTS

what as they are manipulated on the nottingham lace and lace curtain machines. The result is to all intents and purposes an Oriental rug of the Mahal or Muskhabad type, but of superior quality. The texture and the back are the same, and the fringe is a self-fringe made by knotting the warps by hand after the rug comes from the loom. No one unaware of the existence of this loom would suspect that the 10 by 12 rug illustrated in Plate XIII was not made by hand-knotting. The result is identical. There is no difference. Injured and stained spots can be replaced by hand-knotting, just as in Oriental rugs, and rugs can be cut down and reshaped at will. I was overwhelmed with surprise when I looked over 50 of these sehna axminsters in large sizes. There can be little doubt that they will ultimately supplant some of the "modernised and standardised" Persian and other Oriental rugs formerly imported into the United States in enormous quantities.

SPANISH AND OTHER EMBROIDERED RUGS

Among embroidered rugs, the most interesting are those that have come down to us from the Spanish Renaissance, like the one in the main hall of the Decorative Arts Wing of the Metropolitan Museum, illustrated in Plate XIV. The colours are characteristic Spanish greens, blues and yellows, and the design is interesting and well composed. An example of "Turkey work," of the kind referred to in Chapter VII, is the bedspread signed "M. B. 1809" in the Colonial Room in the basement of the Metropolitan Museum. An interesting cross-stitch embroidered rug in the same room is the one made in Northeastern New York about 1810, and lent to the museum by Miss Mygatt. It was made in strips a yard wide, which were then sewed together. The border has shell-bearing bands on each side of a fret band, and the field consists of diagonal wavy bands of roses intersecting one another at right angles, with plain squares between the intersections.

As for rag carpets and fibre rugs and grass rugs, everybody knows them. They are all made on the same plan, big heavy wefts with slender cotton binders. Twenty years ago the rag carpet industry was an important one, and housewives all over the United States used to sew their rags into long strips to be woven into rugs at the local factory. Now rag carpets are mostly made out of new rags, as are the round and oval carpets sewed together out of pleated braids



Plate XIII FEREGHAN RUG MADE IN MASSACHUSETTS With machine-tied Sehna knot

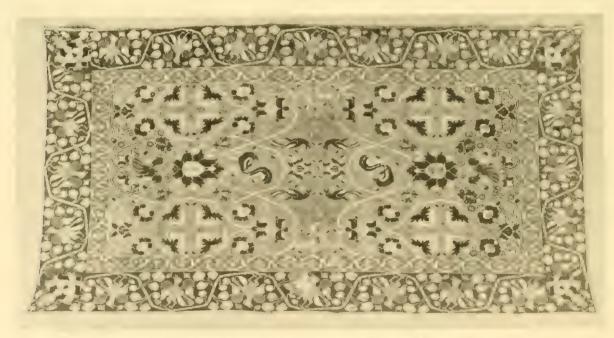


Plate XIV LARGE SPANISH RENAISSANCE EMBROIDERED RUG

of rags. The home industry part has mostly disappeared. There are to be seen examples of both kinds of rag carpet in several rooms at Mt. Vernon. Last but not least come the Colonial "hooked rugs," many of which artistically are worthy of comparison with fine Oriental rugs, and also nearly equal them in cost. The modern examples are less interesting than the ancient ones.

Credit for illustrations: Plates I, II, III, IV, X, the Persian Rug Manufactory; Plates VI to IX, the Alexander Smith & Sons Carpet Co.; Plates XI, XII, M. J. Whittall; Plate XIII, the United States Persian Carpet Co.; Plate XIV, the Metropolitan Museum of Art.

CHAPTER IX

CHINESE AND BOKHARA RUGS

Most things Oriental are mysterious, especially Oriental rugs. Not until the publication of the great Vienna book, of which Sir C. Purdon Clarke was the English editor, did order begin to be evolved from the chaos of Oriental rug classification. Since then many popular books have been published on the subject, some of which should have been suppressed, as they only multiplied the confusion already existing. Among the volumes in English that deserve serious consideration are those by Mr. Mumford, Mr. Hawley and Dr. Lewis. As far as America is concerned, Mr. Mumford, blazed the path along which others have followed. Mr. Hawley's book is especially to be commended for its painstaking marshalling of facts and details, and for its line illustrations of motifs and borders. Among the Europeans who have done most to increase knowledge about Oriental rugs are Dr. Martin, Dr. Bode and Mr. Vincent Robinson.

In studying Oriental rugs, one should begin with the great divisions. One should learn to distinguish Chinese rugs from Bokhara rugs; Caucasian rugs from Turkish rugs; Persian rugs from those made in India. After that, it is time enough to begin to separate the different varieties of Caucasian from each other, Daghestans, for example, from Cabistans; or in the Turkish group, Ghiordes rugs from Kulahs; or in the Persian group, Fereghans from Kirmans.

In this chapter I shall confine myself to the Chinese group and to the Bokhara group.

Chinese rugs have an especially distinctive character. The weave is so loose and coarse, the colours so pale and delicate, with all strong reds absent, and with blues and yellows predominating. The designs, with few exceptions, are of native Chinese origin, found also in Chinese silks, porcelains and other Chinese works of art.

However, until the last quarter of the nineteenth century, Europe

and America were not aware that beautiful rugs had been produced in China. Not until then did a few seventeenth and eighteenth century examples begin to attract attention and admiration in Paris, London and New York. Since then, as a result of the Boxer Revolution, and other internal Chinese troubles, thousands of Chinese rugs have been sold at auction as well as at private sale in both Europe and America. Much of the important literature on the subject of Chinese rugs has been in the form of sale catalogues. Among the best of these are the three prepared by Mrs. Ripley for the Tiffany Studios, and published in 1906, 1907 and 1908, respectively. To these three de luxe catalogues, the editions of which were small and the circulation limited, I am indebted for valuable material.

A large proportion of the detached motifs found on Chinese rugs are based on the three great religions of China—Confucianism, Taoism and Buddhism (Plate II). Most of the designs and symbols that belong to the *literati* (learned men), as well as those that illustrate the religious worship required of the Mandarins who on festival occasions represent the Emperor, and have charge of the ritual of the state, are of Confucian origin. Among the symbols most often used are scrolls, chessboards, inkstands, brushes, lutes and other musical instruments, together with the "eight ordinary symbols": hollow lozenge, solid lozenge, sounding stone, rhinoceros horns, coin, books, round ball or pearl, leaf. Taoism, the religion of fear, has supplied weavers with many designs that illustrate belief in astrology, lucky signs and geomantic influences. Those most frequently found in rugs are the "emblems of the eight immortals": castanets, flower baskets, flute, lotus pod, sword, fan, bamboo musical instrument, gourd. Buddhism has also influenced the decorative arts of China materially, and we are apt to find some suggestion of its influence, even when the origin of the main features of a design can be traced to one of the two earlier religions. The "eight Buddhist symbols" are: wheel, knot of destiny, canopy, umbrella, lotus blossom, urn, conch shell, twin fishes.

Chinese naturalists divide the animals into five classes, the first three of which are headed by fabulous creatures: (1) the hairy animals headed by the unicorn (kilin); (2) the feathered animals headed by the phœnix (funghwang); (3) the scaly animals headed by the dragon (lung); (4) the shelly animals headed by the tortoise. At the head of the naked animals (5) stands man.

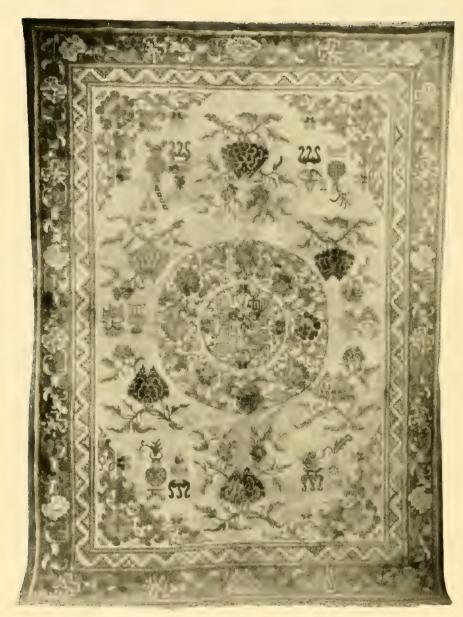


Plate I CHINESE RUG OF THE KIEN-LUNG DYNASTY

The Chinese dragon is a unique creation. In its archaic form it appears as a huge lizard in old fret borders of rugs. The Imperial dragon has five claws on each of his four feet, and only the Emperor and princes of the first and second rank are allowed to use the five-clawed variety. The dragon is often pictured as regarding or holding a round pearl (chin). This is said to symbolise the effort of the dragon to seek and guard wisdom, and protect it from the attack of demons and evil spirits. Here we have the origin of the claw-and-ball foot so often found on English chairs of the Georgian period. The Imperial dragon of Japan has but three claws.

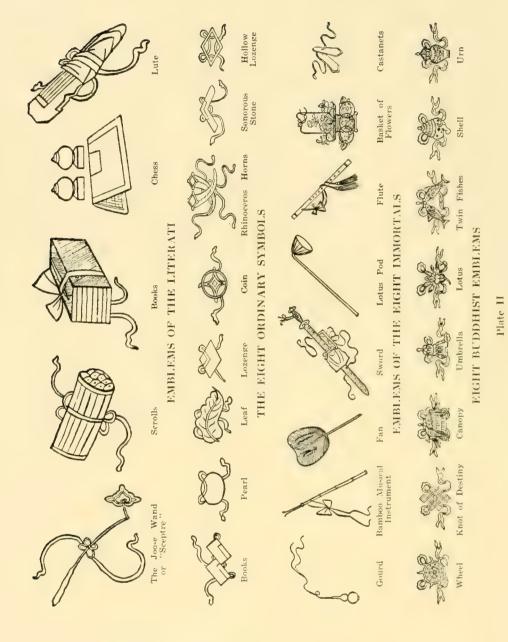
The Chinese phœnix is a kind of pheasant with silky-feathered neck and peacock tail, that lives in the highest regions of the air, and only approaches men to announce happy events and prosperous reigns. The stork (ho) is one of the most common emblems of longevity, and is fabled to stop eating at the age of six hundred years, and at the age of two thousand years to turn black. The bat is an emblem of happiness. Common all-over patterns for the field of Chinese rugs are the "tiger stripe," and the "rice grain."

Of the large, round medallions used in the field of many Chinese rugs, sometimes one, sometimes three, four or five, Mr. Hawley gives an interesting page of illustrations in his book named above. Many of the oldest medallions were copied from mirror backs, and have straight-line designs except as embellished by conventional dragons. During the last half of the seventeenth century, scrolls began to replace the straight lines, and these in turn were replaced in the eighteenth century by naturalistic leaves and flowers.

Often on the field of Chinese rugs appear Chinese lions or lion dogs playing with a ball. Sometimes all the twelve animals which stand in China for the signs of the Zodiac are introduced in the field, or border of rugs. These signs are: the ox, the tiger, the hare, the dragon, the serpent, the horse, the goat, the monkey, the cat, the dog, the bear, the rat.

Important to the student and the dealer in Chinese rugs is a knowledge of Chinese colour symbolism, black standing for water, mercury, iron, etc.; green for wood, tin, etc.

Colours	Elements	Metals	Planets	Directions	Seasons
Black	Water	Iron	Mercury	North	Winter
Green	Wood	Tin	Jupiter	South	Spring
Red	Fire	Copper	Mars	East	Summer
White	Metal	Silver	Venus	West	Autunin
Vallow	Forth	Cold	Saturn	Middle	



The warp of Chinese rugs is almost always of cotton. Consequently the end selvages and the fringes are unimportant, as cotton does not make interesting selvages or fringes. Of course some of the very finest rugs, those with woollen as well as those with silk pile have a silk warp. In Chinese rugs of the seventeenth century, the spinning of the wool is less regular, the texture apt to be coarser, the colour tones apt to be darker than in those made since. Especially frequent are dark browns that have often rotted away the wool because of the destructive quality of the dye. The designs of seventeenth century Chinese rugs are more geometrical and rectilinear than those of the eighteenth century. They are also distinctly archaic, especially those of the first half of the century, belonging to the Ming period.

In the last half of the seventeenth century the influence of Persian rugs begins to make itself apparent in Chinese rugs. Also in the last half of the seventeenth and the whole of the eighteenth century, there is a very curious and interesting parallelism between Chinese and French rulers and styles. The Emperor Kang-hi corresponds to the French King Louis XIV and to the Régence. The Emperors Yung-cheng and Kien-lung correspond to the French Kings Louis XV and Louis XVI. Compared with the style of Louis XIV, that of Louis XV is a naturalistic and unsymmetrical style. So is the style of Kien-lung as compared with that of Kang-hi. This generalisation is based on observed facts and will be found very helpful in classifying Chinese rugs, and in correcting errors of classification that may have been made by others, although it must be remembered that in all periods the Chinese have always been especially fond of reproducing the glories of the past, in other words, of copying the successes of their ancestors. Undoubtedly many of the Chinese rugs sold in the past few years as antique are late nineteenth or twentieth century reproductions. Today ancient Chinese rugs are being copied not only in China but also in India and Bulgaria.

Noteworthy about Chinese rugs is the fact that most of the designs are less continuous than in Persian and other Oriental rugs. The motifs are apt to be detached, and separated from each other by spaces of solid colour. This is especially true of the rugs that show the signs and symbols of the literati. Also, the borders of Chinese rugs are much less important than those of most other Oriental rugs. This is particularly true of Chinese rugs of the seventeenth century. The narrowest borders of all are those woven in the first half of

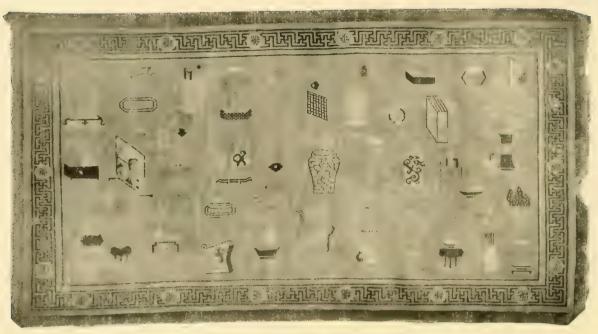


Plate III - CHINESE RUG OF THE KANG-III DYNASTY Patterned with symbols of the Literati

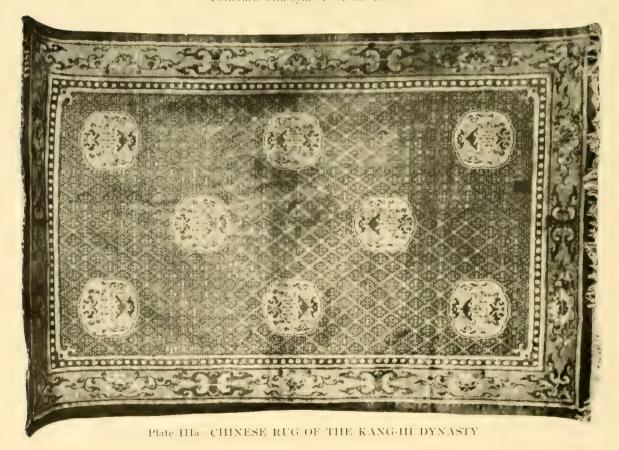






Plate IV CHINESE RUGS OF THE KIEN-LUNG DYNASTY

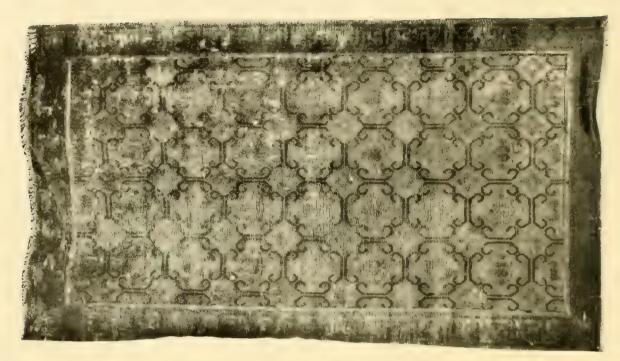


Plate V CHINESE RUG OF THE MING DYNASTY

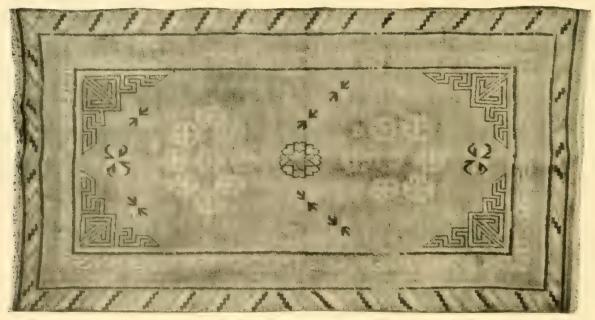


Plate VI SAMARCAND RUG

the seventeenth century, that is to say, of rugs of the Ming period.

The pile of Chinese rugs is comparatively high, so that it leans over even more than the pile of Kazak rugs, and gives the Chinese rugs a peculiarly silky lustre.

Whilst Samarcand is now in Russian Central Asia, it was once a part of Chinese Turkestan, and subject for centuries to Chinese dominion. Consequently one should not be surprised at finding that Samarcand rugs are Chinese rugs, though with a strong leaning toward Persian. In other words, Samarcand rugs might be described as Chinese-Persian rugs. The designs are apt to be more continuous than those of other Chinese rugs, and the borders more important, although the weave is almost like that of other Chinese rugs, and the knot is the same; that is to say, the knot used is the Sehna.

GHIORDES AND SEHNA KNOTS

At this point I should perhaps explain that an Oriental rug knot is tied around a pair of warps. To make a Ghiordes knot, lay a short piece of wool over a pair of warp threads; then draw the ends up through between the two warps and pull tight. The result is a Ghiordes knot. In the Sehna knot, one of the ends twists the other way around its warp, so that it comes up outside, instead of inside the pair of warps. In other words, when the Sehna knot is used, single knot ends alternate with single warps, when the Ghiordes knot is used, pairs of knot ends alternate with pairs of warps.

BOKHARA RUGS

Bokhara rugs are also woven with the Sehna knot. Bokhara rugs are just as much distinguished for rich reds as Chinese rugs are by the absence of them. Bokhara rugs are much more closely woven than Chinese rugs, and the pile is trimmed much shorter. Bokhara rugs are woven in Russian Central Asia east of the Caspian Sea, along the line of the Transcaspian Railway and also by the wandering tribes of Afghanistan and Belouchistan. The patterns of Bokhara rugs are radically different from those of Chinese rugs. They are without exception rectilinear, and the favourite motifs are the octagon and other polygonal shapes based on the patterns of marble-tiled and inlaid floors. Instead of cotton warps, they have woollen warps, and frequently long end selvages, and fringes. Often these selvages are ornamented with embroidery or tapestry or broché figures.



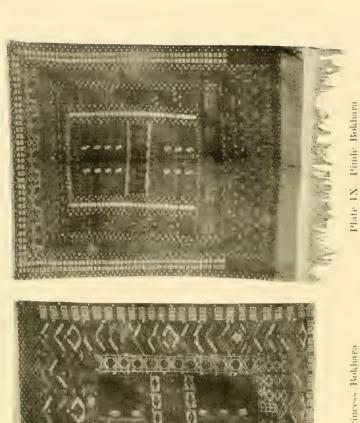


Plate VIII Princess Bokhara

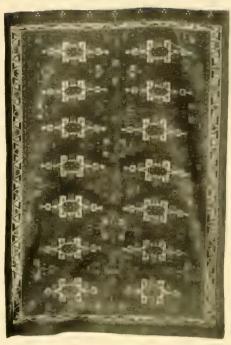


Plate XI -Yound Bokhara

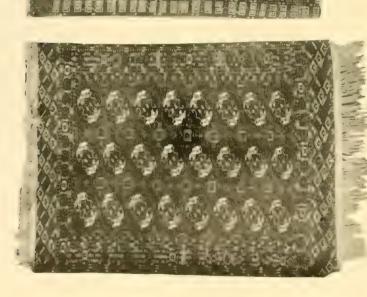


Plate VII Royal Bokhara

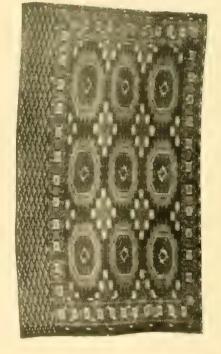


Plate N Tekke Bokhara

The principal divisions of this group are Royal, Princess, Tekke, Yomud, Afghan, Belouche, Beshir, Pinde. The character of the different designs is made clear by the accompanying illustrations. The finest and most exquisite rugs of the Bokhara group are the so-called Royal Bokharas made in the Khanate of Bokhara, in the vicinity of the city of Bokhara, which is the capital of the Khanate and is situated on the Transcaspian railway, and has always been the most important shipping point for Bokhara rugs. Whilst octagon motifs are characteristic of Royal Bokharas, crosses or katchlis are equally distinctive of Princess Bokharas. As the illustration shows, the field of a Princess rug is divided into four quarters by a cross intersecting at the centre of the rug. Rough and crude as compared with these rugs, but nevertheless interesting, are those woven by the Tekke and Yomud semi-nomadic tribes that inhabit the country between Bokhara and the Caspian Sea. Of Beshirs not only the designs, but also the brick red colouration are distinctive. The Belouche Bokharas woven by the tribes of Belouchistan are a varied group in small sizes, many of them of inferior quality. The end selvages are apt to be very wide and often interesting. Camel's hair often appears in its natural colour in the field. Of all the Bokhara rugs, the only kind that comes regularly in large sizes is the Afghans. The traditional pattern consists of three rows of large octagons, almost in contact. The quarters of the octagon usually alternate red and blue.

Very different are the backs of Bokhara rugs from those of Chinese rugs. On the backs of Chinese rugs the coarse weft threads that pass back and forth after every two rows of knots, are plainly visible. In Bokhara rugs these weft threads are comparatively fine, and almost hidden by the woollen knots that encircle the warps.

Credit for illustrations: Plates I, II, III, IV, V, the Tiffany Studios; Plates VI to XI, A. U. Dilley.

CHAPTER X

CAUCASIAN AND TURKISH RUGS

Turkish is the proper name for Oriental rugs woven in Turkey. Caucasian is the proper name for Oriental rugs woven in the Caucasus, which is the part of Russia between the Caspian and the Black Seas. In Europe, in the eighteenth century, Turkish rugs was a general term for all Oriental rugs. The great central market for Oriental rugs is still Constantinople.

The Turkish Empire was at the height of its splendour in the sixteenth century under Soliman the Magnificent, the contemporary of the Emperor Charles V. It had been founded at the beginning of the fourteenth century by the Ottoman Turks, on the ruins of the Empire of the Seljuk Turks in Anatolia. During the next century and a half it was extended westward into Europe, and Adrianople became its capital. In 1453 the Ottoman Turks captured the last stronghold of the ancient Roman Empire, Constantinople, which since then has been Mohammedan instead of Christian.

By 1840 the power of the Turkish Empire had so declined that only the interference of the Quadruple Alliance prevented its downfall. Again in 1853, and still again in 1878, the European powers intervened to prevent the Russians from crushing Turkey. Egypt, formerly tributary to Turkey, is now British, having been acquired in order to control the Suez Canal and the route to India. Among other territories, the control of which had been taken from Turkey by the European powers, are Bulgaria, Bosnia, Crete and Cyprus. The Turkish Empire is a medley of races and of religions, the dominant Turks being much in the minority, and not over half of the population being Mohammedan. Other important races are the Arabs, Armenians, Kurds, Greeks, Jews, Slavs, Albanians.

The Caucasus might be described as a Russian isthmus connecting Europe and Asia, bounded on the east by the Caspian Sea and on



Plate I AN ESPECIALLY FINE LADIK RUG



Plate II KAZAK RUG

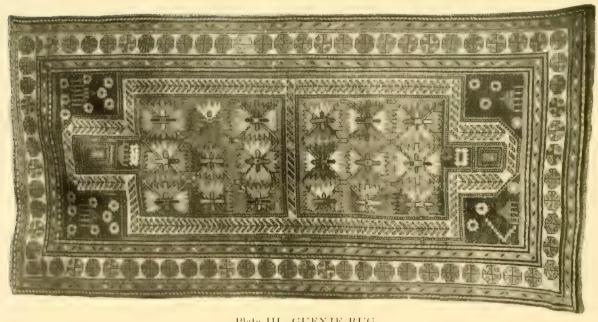


Plate III GUENJE RUG

the west by the Black Sea. The Caucasus Mountains, seven hundred and fifty miles long, and loftier than the Alps, cross the country from northwest to southeast, separating Northern Caucasia from Transcaucasia. The capital and principal rug market is Tiflis. A railway six hundred and twenty-one miles long connects Batum on the Black Sea with Baku on the Caspian Sea, via Tiflis. Nowhere else in the world is there such a confusion of races and languages, the number of dialects being estimated at sixty-eight. A majority of the people belong to the Russian Church, though Mohammedans are many. The area of the Caucasus is three and one-half times that of New York State, and the population about the same. The Russians first entered the Caucasus in 1770, and by 1800 had acquired practically all of Northern Caucasia.

In 1813, having conquered Persia in a two years' war instigated by France, the Russians acquired Daghestan, Shirvan, Baku and the right of navigation on the Caspian Sea. In 1828, as the result of another war with Persia, they acquired the bulk of Persian Armenia. In 1878, as the result of a successful war with Turkey, they acquired the most important part of Turkish Armenia.

Next to Constantinople, Tiflis is the most important rug market in the world. It is the political and military capital of the Caucasus, and has been developed by Russia in a manner worthy of its importance, having wide, paved streets, lighted by electricity; large and handsome shops, street cars running in all directions, imposing public buildings, a magnificent cathedral, an elaborate opera house, an interesting museum of natural history, and excellent hotels. But whilst one-half of Tiflis is handsome, safe and civilised like Europe, the other half is purely Oriental—narrow streets, mysterious houses with shuttered windows and closed doors; merchants grouped by trades, the rug dealers in one quarter, the makers of weapons in another, and so forth.

CLASSIFICATION OF ORIENTAL RUGS

It is perhaps unnecessary to announce here that the classification of Oriental rugs is not an exact science. Every dealer has his own system, based upon his personal experience and reading, and the more experience he has the less likely he is to attach supreme importance to minor subdivisions. I shall endeavour to introduce into these chapters only terms that are commonly accepted and used.



Plate IV—DAGHESTAN RUG

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One might as well admit at the start that it is impossible to learn a great deal about Oriental rugs from books or magazine articles, no matter how excellent they may be, *unless* the book knowledge be backgrounded by much actual experience with rugs. Photographs only remotely suggest the rugs themselves. They entirely eliminate the texture, which is what makes Oriental rugs really worth while.

CAUCASIAN RUGS

The weavers of Caucasian rugs have a passion for the straight lines and the mosaic effects that have put Caucasian rugs in a class by themselves. Caucasian rugs illustrate the highest development of the extreme conventionalisation of primitive design. Primitive people easily and naturally interpret nature forms in simple but characteristic straight line figures, and it is always reserved for the art of civilisation to express itself in the curves and flowing lines of nature. Caucasian designs have remained true to the first inspirations, though elaborating themselves in the most complicated and delicate patterns. The colours, too, are distinctive—blue, red, ivory, yellow, green—intricately and interestingly combined, though seldom or never with the perfect feeling for colour that is characteristic of Chinese and Persian rugs.

Among the Caucasian rugs, the most individual and striking are the Kazaks (Plate II). They have an extraordinary lustre, particularly the fine old pieces, which is not surpassed by that of any other type of Oriental rugs. Yet they are exceedingly coarse in texture, and very loosely woven out of very coarse wool, that is left very long so that the surface of Kazak rugs might be described as shaggy. The extraordinary silkiness is due to the coarseness of the weave, and to the length of the pile. Because of the loose texture, the pile cannot stand up straight but leans far over, thus reflecting much of the light as does satin, instead of swallowing it up as do rugs of closer weave and finer texture. Coarseness marks the design as well as the weave. Kazak rugs have bolder figures, and stronger colourings than other Caucasians. While the motifs are similar, the scale of the design is much larger. Most Kazak rugs are nearly square in shape, and they come in small and medium sizes only. The predominating colours are red, ivory, blue and green, much richer in effect than the colours of other Caucasian rugs. The name Kazak is the same as Cossack, and the rugs are made by Cossack tribes who live in Southern

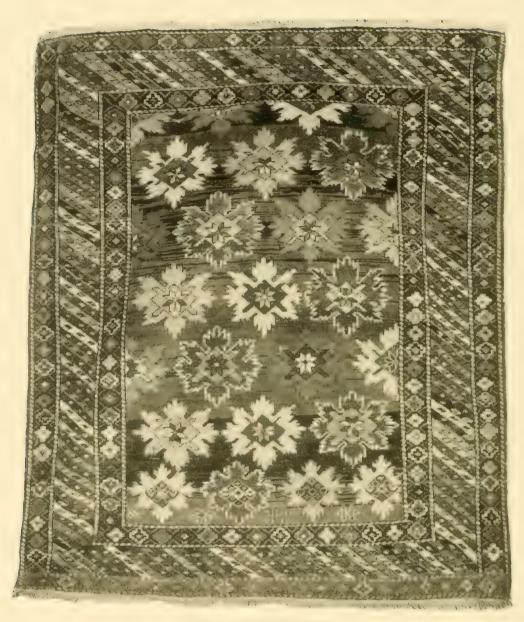


Plate V SHIRVAN RUG

Caucasia, in the district of Erivan near Mount Ararat, where Russia, Persia and Turkey meet, and where Noah's Ark is said to have landed thousands of years ago, and where the faithful say it can still be seen by those who are sufficiently spiritually gifted.

Guenje rugs (Plate III) take their name from the city of Ganja (now Elisabethpol) ninety miles southeast of Tiflis, where they are marketed. Guenjes resemble Kazaks in design, colour and texture, but are usually thinner and coarser, and the colours are generally much inferior. For purposes of ready reference and quick identification, Guenjes might be described as "poor Kazaks," and Kazaks as "fine Guenjes."

Between Daghestans (Plate IV) and Shirvans (Plate V) there exists much the same difference as between Kazaks and Guenjes. Both Daghestans and Shirvans have a comparatively short pile—not long and shaggy like the Kazaks and the Guenjes—but the designs of the Daghestans are much finer and more intricate, and the weave is much finer with from forty to sixty per cent. more knots to the square inch. Daghestans also tend to be squarer in shape than Shirvans. Both come in small sizes only.

Long and narrow rugs of the Daghestan group are called Cabistans (Plate VIII) from the city of Kuba in the Province of Daghestan. These Cabistans vary greatly in type, some of them having a hard texture like other Daghestans and some having a comparatively soft texture, with designs that show more Persian influence and feeling.

An interesting feature of many rugs of the Daghestan group are the tiny human and animal figures, drawn most crudely and rudely in straight lines, and scattered at random here and there over the fields of the rugs. The rugs of the Caucasian group that show most Persian influence are the Karadaghs, which might almost be described as Caucasian Kurdistans. They are particularly distinguished by their magenta reds.

Chichis (Plate VI) separate themselves from other Daghestans by their olive greens, and by the fact that their designs are the most intricate and crowded of all the Caucasians. Noticeable in most of the Bakus (Plate VII) are the washed-out blues and the large pears of the designs, resembling roughly the pears that are so frequently found in Persian rugs, particularly in Serebends. Noticeable in the so-called Lesghian strips (Plate X) are the yellows.



Plate VI—CHICHI RUG



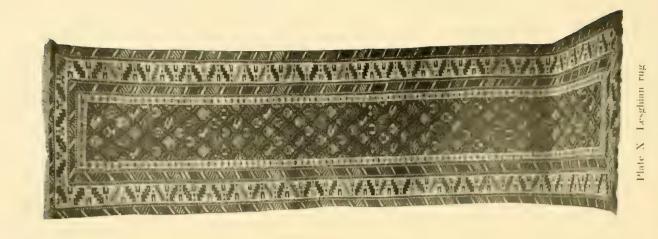
Plate VII - BAKU RUG

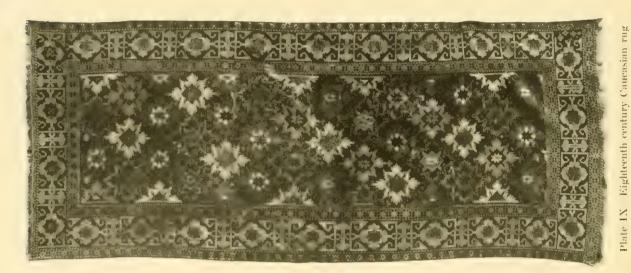
CASHMERES AND SOUMAKS

The Cashmeres (Plate XI), otherwise called Soumaks, are in a class quite by themselves. They have not a pile surface like other Oriental rugs, but a flat surface. They are made not by tying short pieces of wool around pairs of warps, but by twisting woollen yarn around the warp, over four and then back under two, then over four again and back under two again, which operation continued indefinitely and varied to produce certain variations of surface texture, produces one of the most durable, though not the heaviest, of floor coverings. The process is a kind of modified tapestry weaving, half-way between tapestry and pile rug knotting, and like tapestry weaving leaves many loose threads on the back. Because of these loose threads, and the consequent resemblance of Cashmere rugs to the Cashmere shawls from India so famous during the nineteenth century, these rugs got the name Cashmere. It is certainly a much more poetic name than Soumak, derived from the name of the town where they are marketed. Because of the peculiar texture, the line effects—and particularly the white-line effects—of Cashmere rugs are extraordinarily accentuated.

TURKISH RUGS

The principal types of Turkish rugs are Ghiordes, Kulahs, Ladiks, Melez, Oushaks, Bergamos. These are the rugs that a few years ago were the especial pride and joy of the American collector. His status as an amateur was determined by the number of Ghiordes prayer rugs that he possessed; and if in addition he had a few Kulahs, two or three Ladiks and one or two Bergamos, he was almost entitled to quality as an expert. It was easy then to get romances believed. American knowledge of decorative art was slight and the very eagerness to be informed made Americans an easy prey to Oriental and American importers of rugs. It was not sufficient then merely to say that a rug was a "genuine antique," and then descant upon its beauties of texture and colour; every important piece then seemed to have had some remarkable career, to have been the property of some famous sultan or some famous mosque. Nor was it sufficient then to claim for rugs an age of fifty or one hundred years; nothing less than two or three hundred years would do. Some collectors claimed to have as many as ten or fifteen Turkish rugs dating from the seventeenth or sixteenth century, or even from the fifteenth. We know now that







with a few exceptions, all of these remarkable antique rugs dated from the eighteenth or nineteenth century.

Turkish rugs have designs that are largely formed of straight lines. In this they resemble the Caucasians and the Bokharas, and are unlike the Persians and most of the Chinese. But they do not have the rigid octagons of the Bokhara group, or the spiky points of the Caucasian group. Turkish rugs occupy a design position intermediate between Caucasians and Persians. They excel Caucasians in grace of outline and in warmth of colour, and they excel Persians in strength of pattern. Especially in prayer rugs were the weavers of Asia Minor successful (Plates I, XII, XIII, XIV and XVI). In this work they had the inspiration of the most enthusiastic piety. In many of them is pictured in considerable detail the mihrab of a Moslem chapel, with its hanging lamp. Human figures, however, and animals of the type found in Daghestan rugs, never appear. The Mohammedans of Turkey are Sunnites, who are very strict in their obedience to the Mohammedan law against the picturing of animal forms, unlike the Persians who are Shiites. (See Animal Patterns in Chapter III.)

GHIORDES AND KULAH RUGS

The town of Ghiordes that gives its name to Ghiordes rugs (Plates XII, XIII, XIV) is the ancient Gordium where Alexander the Great is said to have cut the Gordian Knot.

Especially in the eighteenth century were the rugs of Ghiordes worthy of comparison with the best that were produced in Persia, although in no respect equal to the great Persian rugs of the sixteenth and seventeenth centuries. But the Ghiordes rugs woven in the last fifty years are so inferior to the ancient pieces in weave, colour and pattern as not to merit serious attention.

The rugs that most closely resemble the Ghiordes are the Kulahs (Plate XVI), bearing about the same relation to them as Shirvans to Daghestans. Like the Ghiordes, a large proportion of the Kulahs have architectural or prayer niche patterns, but the field is usually filled with pattern instead of plain as in the Ghiordes rugs, and the borders consist of many stripes alternating in colour, instead of one large band with a stripe on each side, as in most Ghiordes rugs.

Both Ghiordes and Kulahs have a comparatively short pile, and the designs are in every way richer and warmer and more floral than



Plate XI | CASHMERE RUG

those of Caucasian rugs, in spite of the fact that like them they are rectilinear.

On the ruins of ancient Laodicea is the mud-walled town of Ladik, once the centre of an important rug industry. The pieces now woven there imitate the ancient rugs but poorly in weave and colour. Of the few ancient Ladiks that still survive, that illustrated in colour in Plate I is one of the finest. Note particularly the broad band in the border, with its Rhodian lilies. The field of Ladik prayer rugs, like that of Ghiordes prayer rugs, is usually in solid colour.

Compared with Ghiordes, Kulah, and Ladik rugs, those made in Bergamo—that is the ancient and famous city of Pergamum—are like Kazaks as compared with other Caucasians. In other words, they have a deep pile, strong rich colours, and comparatively coarse designs. At Oushak in the sixteenth century were made some of the finest rugs that survive in European and American collections. But the modern Oushaks with their coarse pile and strenuous greens are uglier even than the machine rugs based on them.

In Chapter IX we noted that whilst Chinese rugs have cotton warps, Bokhara rugs have woollen warps. Both Turkish and Caucasian rugs have woollen warps, that sometimes form rather attractive knotted fringes, especially in Daghestans and Bergamos.

We also noted in Chapter IX that both Chinese and Bokhara rugs are tied with the Sehna knot, which tends to produce a closer and more velvety surface than the Ghiordes knot. It is interesting to note here that both the Turkish and the Caucasian group are tied with the Ghiordes knot, in which the two points of the knot come up together, instead of being separated by a warp.

One of the earliest types of Turkish rugs with which we are familiar gets its name from the great painter Holbein, because pictured in his paintings, notably in the celebrated portrait of George Gyze that hangs in the Berlin Museum (Plate XV). The table upon which he rests his hand is covered with a rug that in type seems half-way between Caucasian and Turkish. The border is one of the so-called Cufic borders, based upon an early straight line form of the Arabic alphabet. As Holbein flourished in the first half of the sixteenth century, and as other similar rugs appear in the works of Flemish and Italian painters of the same period, we may reasonably assume that some of these rugs were made before the end of the fifteenth century and that examples found their way to European

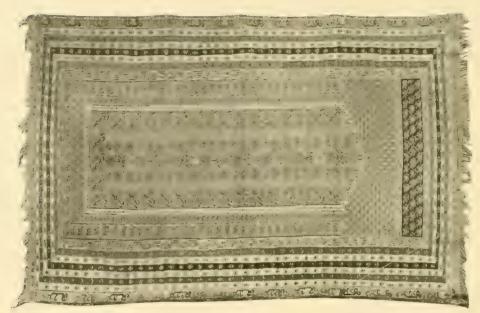


Plate XII



Plate XIII

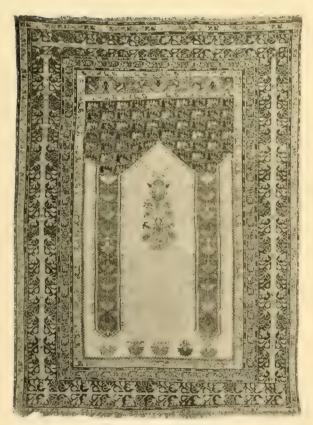


Plate XIV

GHIORDES PRAYER RUGS



Plate XV PORTRAIT OF GEORGE GYZE BY HOLBEIN Showing a Turkish rug with Cufic border



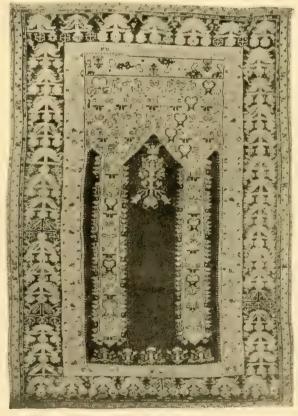


Plate XVI TWO TYPES OF KULAH RUG

DECORATIVE TEXTILES

centres. Several important examples of this class are now in the Metropolitan Museum of Art, two of them lent by Mr. C. F. Williams.

Credit for illustrations: Plates I, III to VI, VIII, X, XI, A. U. Dilley; Plates II, VII, XIII, XIV, XVI, the Tiffany Studios; Plate IX, the Metropolitan Museum of Art; Plate XII, James F. Ballard.

CHAPTER XI

PERSIAN AND INDIAN RUGS

For centuries the world's finest rugs have been woven in Persia, where the best wool for the purpose is grown. The designs are both interesting and intricate, and based mainly on flower and leaf forms, although in the sixteenth century many animals appeared, especially in the so-called "hunting rugs." The designs of Persian rugs are not detached, as in so many Chinese rugs, but usually tied together into all-over patterns that usually cover every inch of the surface with detail. The designs are also peculiarly suited for interpretation in rug texture, being flat without relief shading, and also being vivid with life, though not naturalistic to the extreme extent of many ancient Indian, and eighteenth century Chinese rugs. Compared, however, with Bokhara rugs and Caucasian rugs and Turkish rugs, Persian rugs have designs that are full of curves and decidedly naturalistic. Except in a few isolated groups, like the rugs of Shiraz, rectilinear forms of the Caucasian variety never appear.

Among design motifs often found in Persian rugs are the Pear, the Shah Abbas, the Mina Khani, the Guli Hinnai, the Herati. The figure that on cashmere shawls has been known in America and England for more than a century as the *cone*, because apparently representing the cone of a pine tree, now gets a new name from everybody who writes about Oriental rugs. It is variously called the pear, the palm, the palmette, the river loop, the loop, the crown jewel, the flame. A common form of this "cone" or "pear" is shown in the Serebend illustrated on Plate XIII. The real basis of the motif is probably a leaf.

The famous Shah Abbas motif (Plate IX) consists of a large and mature but not quite fully opened flower, seen from the side, and often framed by the outlines of a large and symmetrical pointed leaf. This motif bears a curiously close resemblance to the pomegranate

DECORATIVE TEXTILES

forms so much used in Western Europe in the fifteenth century and the early part of the sixteenth. It appears both in the border and in the field of the ancient rug illustrated on Plate III.

The Mina Khani motif shows a large diamond-shaped figure with bright flowers seen-from-the-face, on the vertices and in the centre five of them in all. (See description of Plate V below.) The Guli Hinnai motif shows a central stalk parallelled by three blossoms on each side.

The famous Herati or "fish" pattern consists of a rosette between two slightly curved leaves. This is sometimes called the "twin fish" pattern because of the resemblance of the leaves to the backbone of a fish. The Herati motif appears in both the border and the field of the Sehna rug illustrated on Plate XII. It also appears in the field of the small Fereghan rug illustrated on Plate XIV, but here is grouped in sets of four around small diamond-shaped medallions, the vine outlines of which are much accentuated.

Most Persian rugs, ancient as well as modern, have cotton warps, and consequently fringes that are comparatively unimportant. The principal Persian rugs with woollen warps are those that bear the name Shiraz, Kurdistan, Karadagh, or Bijar. Persian rugs that are tied with the Sehna knot, so called from the Persian city of Sehna, are those that bear the names Sehna, Kirman, Khorassan, Kashan, Fereghan, Saruk and Serape. The other varieties of rugs made in Persia are usually tied with the Ghiordes knot. Rugs tied with the Sehna knot are apt to have a shorter pile and a less silky surface, but design of greater intricacy and more definitely outlined.

A splendid example of Karadagh is the one belonging to Mr. Howard Greenley illustrated in colour on Plate V. The name comes from the Karadagh Mountains in the extreme northwestern part of Persia where the rugs are woven, close to the Caucasian border. So it is not strange that Karadagh rugs often show rectilinear and geometrical forms resembling those of Daghestan and other Caucasian rugs. The rug before us, however, with the Shah Abbas motif in the field and a variant form of the Mina Khani motif in the border, and with its rich and brilliant colouration, suggests at once the Kurdistan runners that have their long fields filled with the Mina Khani motif.

PERSIAN ANIMAL RUGS

Of all the ancient rugs shown in the Metropolitan Museum of Art in New York City, I personally like best the ancient sixteenth

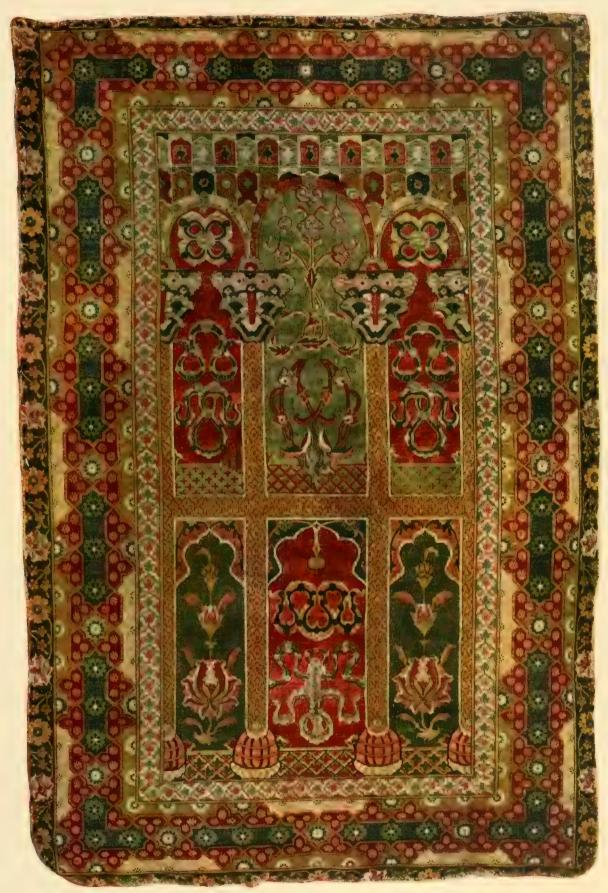


Plate I PERSIAN PRAYER RUG OF THE SIXTEENTH CENTURY Woollen and cotton pile, broché with gold, on cotton and silk web In the Bayarian National Museum at Munich

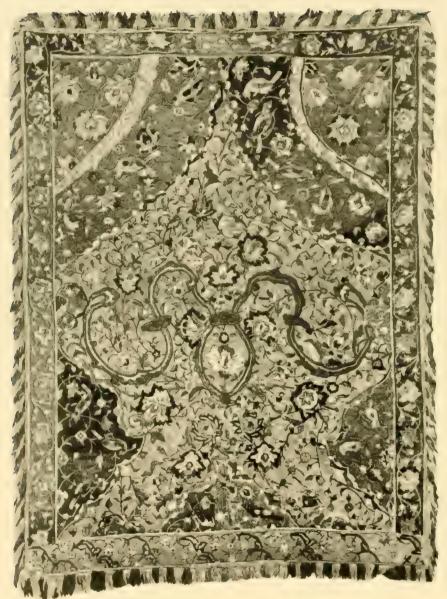


Plate II—PERSIAN RUG OF THE SIXTEENTH CENTURY
Woollen pile on silk web. In the Imperial Austrian Commercial Museum
Note the imposing Chinese cloud band across the middle

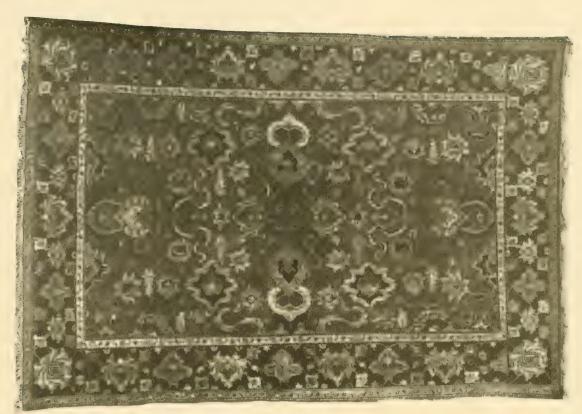


Plate III—ANCIENT ISPAHAN RUG, SHOWING CHINESE CLOUD BANDS In the Metropolitan Museum

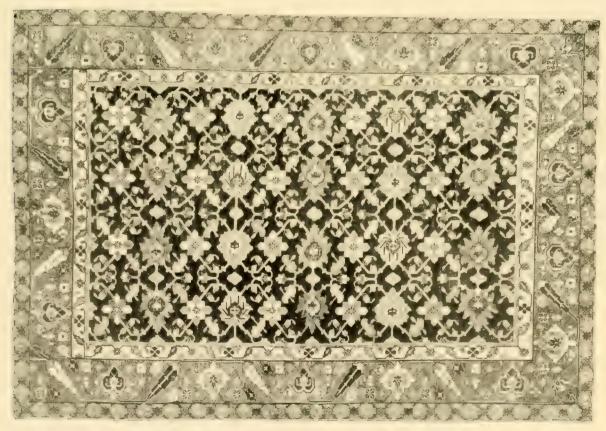


Plate IV- PERSIAN RUG OF THE SEVENTEENTH CENTURY
In the Imperial Austrian Commercial Museum

DECORATIVE TEXTILES

century animal rug illustrated in Plate VI. It was formerly in the famous Yerkes Collection, from which it was purchased at the auction sale in 1910 for the Metropolitan Museum at a cost of \$15,200. The pile is of wool, but both warp and weft are of silk, thus making possible the extraordinarily fine texture of four hundred and eighty knots to the square inch. The length is 10 feet 11 inches, the width 5 feet 10 inches. The ground of the field is red, the border ground dark blue.

The rug is sometimes called the Ardebil rug because, like the famous larger piece at the Victoria and Albert Museum at South Kensington, it is believed once to have adorned the floors of the Ardebil Mosque. The main motif of the rug before us, ten times repeated in two parallel rows, shows a lion and a jackal attacking a black Chinese deer spotted with yellow; and the intervening spaces are filled with wild boars and other animals and with many floral forms, some of them peonies executed partly in silver. The main band of the border is a fascinating composition of Chinese cloud band combined with flowers and with vine tracery.

Another sixteenth century Persian animal rug also purchased for the Metropolitan Museum from the Yerkes Collection is the one illustrated on Plate VII. The middle band of the border of this rug is unusually wide, and the guard stripes particularly narrow, thus reminding one very definitely of the Renaissance borders that appear on Flemish tapestries woven in the sixteenth century and the early part of the seventeenth. The unusually large medallion in the centre has itself a wide border of birds in red and blue, perched on slender stems connecting floral motifs on yellow ground; and a field of floral and vine tracery in red, bright yellow and blue, on dark blue ground. The corners of the main field of the rug show flower and fruit trees, with birds in the branches, on dark green ground. The rest of the main field is covered with numerous animals, the Shah Abbas motif, and numerous florals in orange, dark blue and other colours, on a red ground. This rug is a magnificent illustration of the extraordinary success with which the Persians were able to use not only brilliant colours, but many brilliant colours in close contrast, toning and blending them into rich but gentle harmonies.

In the Altman Collection at the Metropolitan Museum are three large rugs with silk pile woven in Central Persia, probably in the neighbourhood of Kashan, in the last quarter of the sixteenth century.



Plate V AN EXTRAORDINARY LARGE KARADAGH RUG

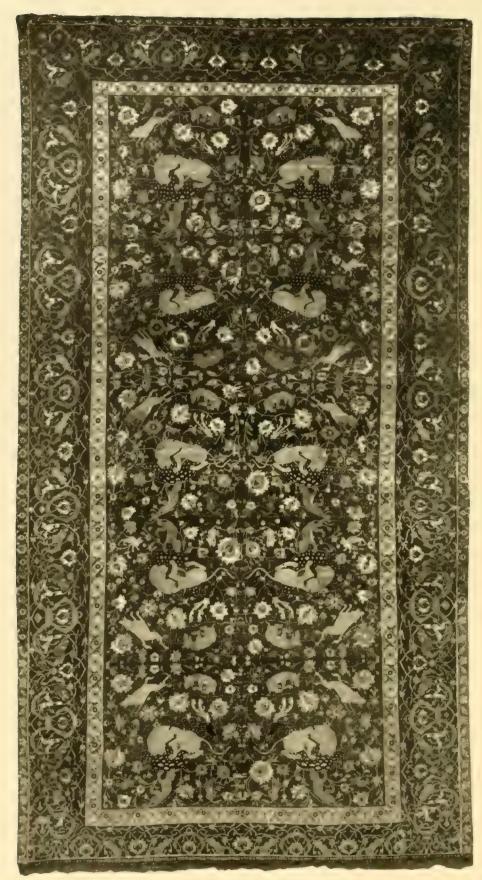


Plate VI ARDEBIL ANIMAL RUG

In each square inch of these three rugs there are from five to seven hundred knots. The one that is illustrated on Plate VIII has a field extraordinarily rich with animal and floral forms, and a border of large flowers and beautiful birds artfully combined into running decoration. The outer band of the border is made up of flowers combined with the Chinese cloud band.

On Plate IX is illustrated the texture of a sixteenth century Persian rug, that although still in comparatively good condition, has been worn down, until the weft shines in bright cross lines through the figures of the Shah Abbas and other florals, and of the birds and animals.

CHISELLED EFFECTS

At this point it is interesting to note that different dyes are apt to affect the wool differently, and that the wool dyed in some colours wears down faster than wool dyed in other colours. Consequently, in a large proportion of ancient rugs the parts of the design in one colour will stand out high above the parts of the design in another colour, so that a relief, or chiselled effect is produced.

COMPARTMENT RUGS

Another extraordinary sixteenth century Persian rug acquired for the Metropolitan Museum from the Yerkes Collection is the one with "compartment fields" illustrated on Plate X. The price paid for this rug was \$19,600. The pile is of wool, with 600 knots to the square inch, while the weft is of silk and the warp of cotton and silk. The size is 16 feet 4 inches by 11 feet 2 inches. There is a similar rug in the Commercial Museum at Lyons, and another similar one is illustrated in the great Vienna Rug Book. The nine main compartments are large rounded octagons picturing the traditional fight of the Chinese dragon and phænix, on blue ground. Tangent to each main compartment are eight radiating escutcheon panels alternating red and blue, the former containing Chinese ducks, the latter vine tracery. Between the blue escutcheon and alternating with the large octagons, are smaller octagons, each with four running lions on blue ground. The background of the main field of the rug is patterned with vine ornament, florals and Chinese cloud bands, in blue, orange and red. The main band of the border has a ground of dark blue, and consists of rounded octagons alternating with round-ended rectangles, the

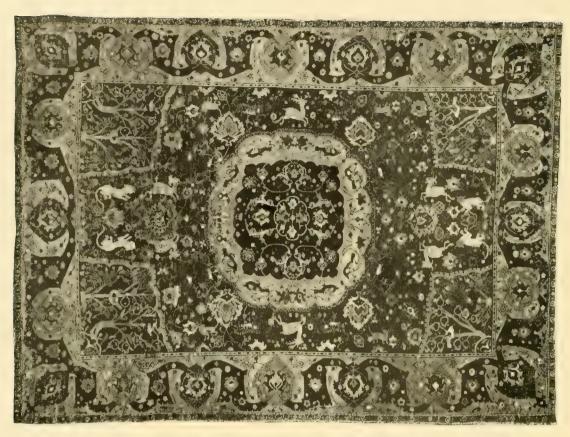


Plate VII A SIXTEENTH CENTURY PERSIAN RUG In the Metropolitan Museum

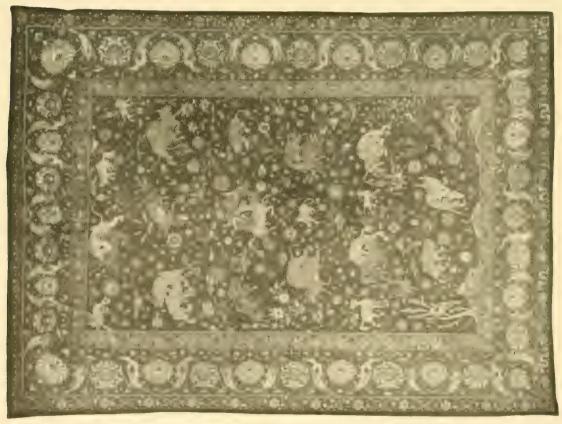


Plate VIII - A SIXTEENTH CENTURY PERSIAN SILK RUG-In the Metropolitan Museum

octagons richly decorated with flowers, and birds, and vine tracery; the rectangles with Chinese cloud bands and floral ornaments.

FAMOUS ALTMAN PRAYER RUGS

From a literary point of view, perhaps the most interesting rug in the Metropolitan Museum is the famous Prayer Rug (Plate XI) in the Altman Collection which shows Arabic and Chinese side by side. In the prayer niche of this rug hangs a mosque lamp amongst red, yellow and pink flowers, outlined in dark brown on green ground. Below are graceful flowing trees in yellow with pink blossoms, and other flowers introduced in pink, vellow and dark red. Filling the parts of the field not occupied by the niche are vine and leaf forms in brown and in white, on claret red ground. The rug has two borders; the outer one, the wider. The inner border consists of an Arabic inscription in red on yellow, supplemented with leaf pattern below. The inscription reads: "May the blessing of God rest upon us all. There is no God but Allah. Mohammed is the Prophet of God. Ali is the Saint of God. God, The Exalted says: 'Verily God and His Angels shower their blessings upon the Prophet. Oh, ye faithful, send your blessings unto Him as well as also your salutations unto Him.'" The outer border consists of four rounded octagons patterned with forms that suggest archaic Chinese lettering; and five rectangles with rounded ends containing quotations in Arabic from the Koran in black on grey; and four other rectangles containing Chinese cloud bands, florals and vine traceries in red, yellow and black on orange and white grounds. This rug formerly belonged to the Bardini Collection in Florence, is five feet five inches by three feet three inches, and was illustrated by Doctor F. R. Martin in his splendid book entitled, "Oriental Carpets."

SEHNA, SEREBEND AND FEREGHANS

A typical Sehna rug is that illustrated in Plate XII. It has the Herati motif, in both border and field; pile of silky wool clipped very short, and a very fine texture. Instead of the Herati design, some Sehnas have the pear motif or a central diamond or medallion. Whilst Sehnas excel other modern Oriental rugs in fineness of weave, the knots are tied so tight that the edges of the rug are likely to curl and pucker. Warp and weft are usually of cotton, but sometimes of silk. Sehnas have narrow end selvages, finished with loose fringe.

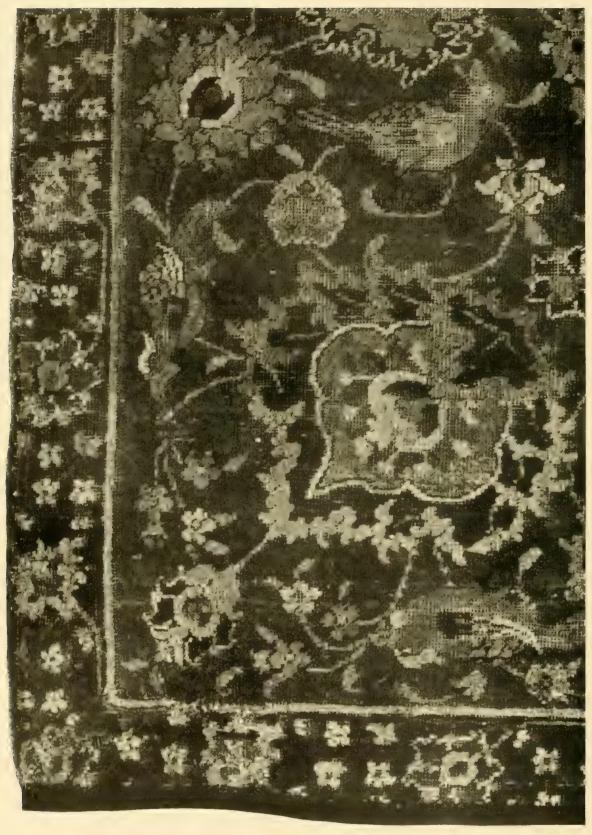


Plate IX PORTION OF A SIXTEENTH CENTURY PERSIAN RUG-Showing "worn down" texture

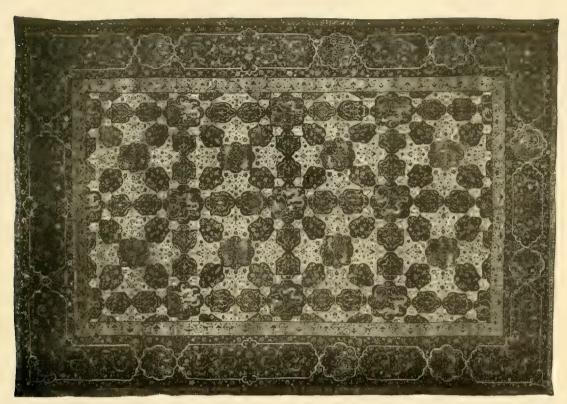


Plate X—EARLY SIXTEENTH CENTURY PERSIAN RUG Of "compartment" design

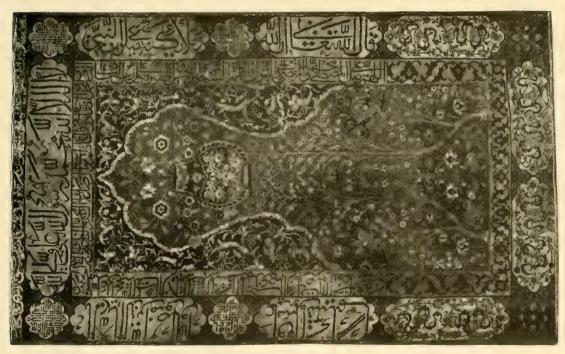


Plate XI—SIXTEENTH CENTURY PERSIAN PRAYER RUG With Arabic inscriptions. In the Altman Collection

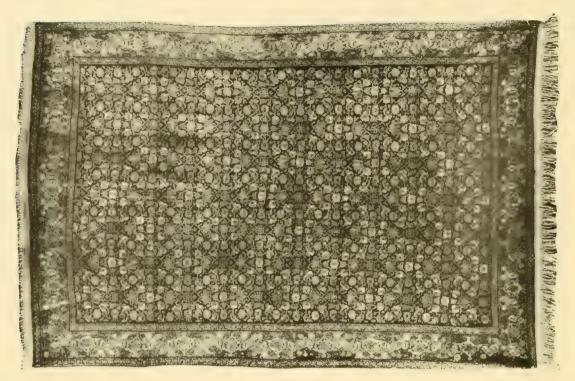


Plate XII A TYPICAL SEHNA RUG With Herati motif in border and field

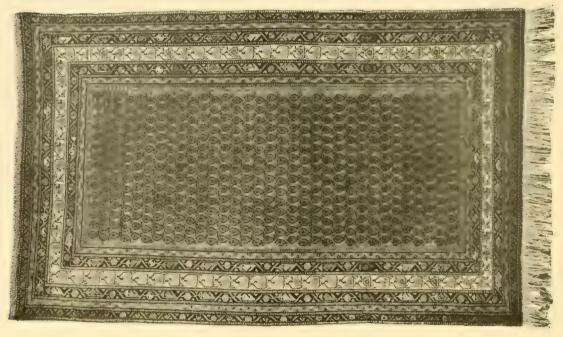


Plate XIII TYPICAL SEREBEND RUG With "pear" field and border of many stripes

One of the most easily recognised Persian rugs is the Serebend. A typical example is illustrated in Plate XIII. The field is filled with horizontal rows of small pear motifs, alternating in direction. The border stripes are narrow and numerous. Serebends are less exquisite in design and weave than Sehnas, but are thicker, firmer and much more durable. The fields of Serebends have a ground of dark blue or wine red.

Probably nine-tenths of all Fereghan rugs have the Herati motif covering the field in one form or another, although the Guli Hinnai motif and small floral diaper designs are also found. The Fereghan rug illustrated in Plate XIV shows the Herati motif in groups of four, connected by a diamond-shaped lattice or framework of vines in between. In many respects, Fereghans resemble Sehnas; they come next to them in fineness of texture and shortness of pile.

Even easier to identify than Serebends are Hamadans, so called from the modern name of the Persian city that was anciently Ecbatana. Nearly all of them have an outside band of camel's-hair "in the natural," which means that it is undyed and light brown or coffee colour in tone. Undyed camel's-hair is also often used in connection with coloured wools in the fields of Hamadan rugs. Characteristic of most of them is the two-tone trellis that backgrounds the pole medallion, as in the example on Plate XV, where only part of the rug is shown, because of its length. A pole medallion, it should be explained here, is a medallion with extensions. The pile of Hamadan rugs is comparatively thick, and the weave comparatively coarse.

MOSUL

Although the city of Mosul is not in Persia but in Turkey—to be exact, on the Tigris two hundred and twenty miles northwest of Bagdad, and near the ruins of the ancient Nineveh, capital of Assyria—Mosul rugs are properly classed with those of Persia. The rugs marketed at Mosul by nomadic weavers from the north, from the east, from the south, are the products of many different races and naturally show great diversity of character. Indeed, the only characteristic common to all of them is the nature of the weave, though they are prone to yellow and russet hues and the wool is soft and lustrous. Many Mosul rugs show Caucasian motifs, such as stars and latch-hooks; others show Kurdish patterns, with but little change

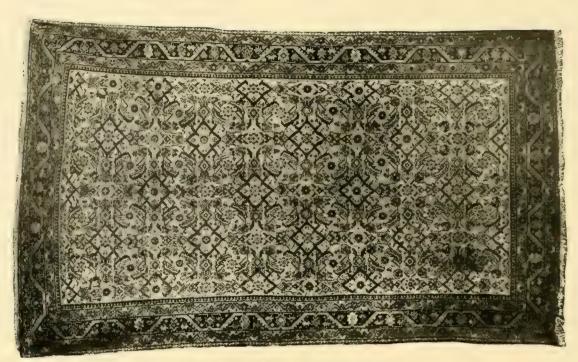


Plate XIV—SMALL FEREGHAN RUG

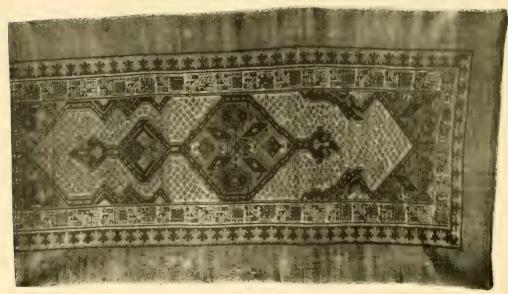


Plate XV PART OF A LONG HAMADAN RUG

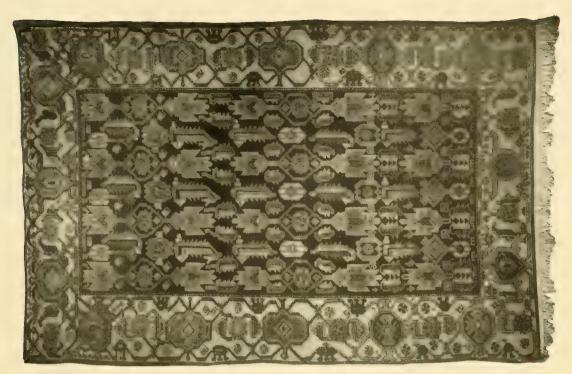


Plate XVI ONE OF THE MANY TYPES OF MOSUL RUG

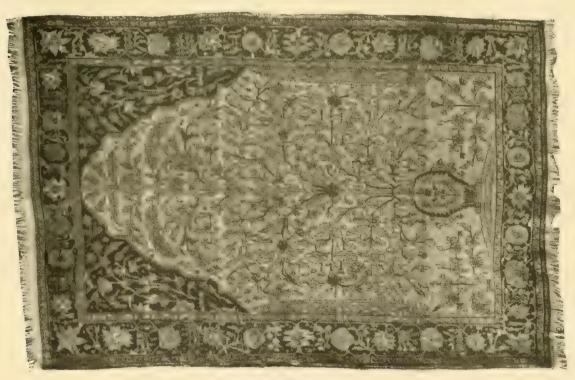


Plate XVII SUPERB SARUK RUG With "tree of life" design

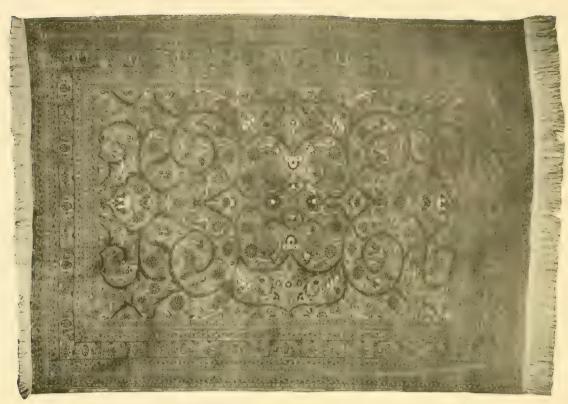


Plate XVIII INTRICATELY PATTERNED ALL-SILK KASHAN RUG

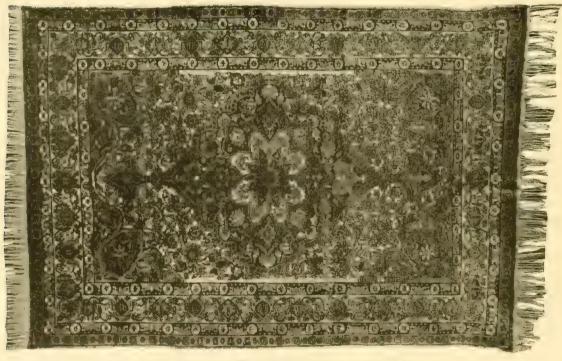


Plate XIX TYPICAL MODERN KIRMAN RUG

from the way in which they appear in Kurdistan rugs. Always the Caucasian motifs are rounded and softened in the Persian direction, whilst usually the Persian designs are coarsened and straightened in the Caucasian direction. A large proportion of the Mosul rugs now on the market have a cotton warp. The Mosul rug illustrated on Plate XVI shows the conflict of Caucasian and Persian influences.

Saruks are often spoken of as the modern Ispahans. The reason why is clear from the nature of the design shown on Plate XVII. Fortunately, Saruks have an exquisite and velvety texture quite worthy of the designs that they interpret. They are woven in the same part of Persia as Sehnas and Fereghans and, like the Sehnas, sometimes curl on account of the tightness of the weave.

Kashan is the centre of the Persian silk industry. A fine example of the silk rugs produced there is the one shown on Plate XVIII.

KIRMAN AND TABRIZ

The wool of southern Persia is particularly soft and fine. Consequently one should not be surprised at the softness of the texture of Kirman rugs. The example illustrated on Plate XIX is a typical modern Kirman with medallion centre, and the greyish tinge that is characteristic of modern Kirmans. Especially in the blues and in the greens is this greyness attractive, and almost lends iridescent effects to the surface. The Kirman illustrated on Plate XX is an antique woven over a century ago. The pile has been worn short but the colours, especially the exquisite roses, are as fresh as ever. This rug is a wonderful creation, thickly patterned with floral forms that leave not a fraction of an inch of the plain ground which is so much affected by those modern decorators who lack colour sense.

The small rug illustrated on Plate XXI is a typical Tabriz (named from the city of Tabriz, the ancient Tauris, in extreme northwestern Persia), in texture but not in pattern. The grounds of Tabriz rugs are apt to be plain, between the corners and the centre medallion of the main field. Some twenty years ago the manufacture of Oriental rugs was begun at Tabriz with the idea of producing there the equal of Kirman rugs, but the hardness of the wool, and the stiffness of the designs supplied to the weavers by European designers, or designers under European control, resulted unsatisfactorily. Rugs were produced of exceedingly fine texture that curled and even broke. The prices were necessarily high because of the fineness of the weave

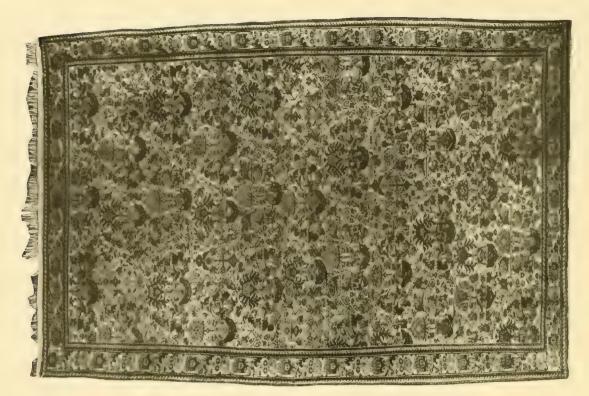


Plate XX—ANCIENT "FLOWER GARDEN" KIRMAN RUG



Plate XXI SMALL TABRIZ RUG

PERSIAN AND INDIAN RUGS

and the expense of the management, but the American public preferred, and rightly, the coarser and softer texture and less formalised designs of Gorevan and Serape rugs from the Herez district.

KHORASSAN

Khorassans are woven in the Province of Khorassan that occupies the northeastern part of Persia, and once included also the western part of Afghanistan in which is situated Herat, now the capital of Afghanistan. The wool of Khorassan, like the wool of Kirman, is soft and silky, and Khorassan rugs, like Kirman rugs, have a greyish iridescence of surface that is most pleasing, but the background of the field is in dark tones, instead of light tones—usually in purplish blues or blue-blacks. Especially interesting from the point of view of design is the Khorassan rug illustrated on Plate XXII, with its flower-filled vases that have been combined into an all-over pattern, so delightfully as to secure all the virtues of repeat, without any of its weaknesses.

The rug illustrated on Plate XXIII is full of Caucasian motifs, and makes one wonder how saw-toothed and straight-line effects of this type ever wandered from the western shore of the Caspian Sea down into southern Persia. For the rug before us was woven not in the Caucasus, but at Shiraz. The story goes that the Shiraz weavers actually are Caucasians, or rather descendants of Caucasians, having been brought here from their native land by a victorious Shah of Persia. Characteristic of Shiraz rugs are not only their Caucasian rectilinear motifs, sometimes modified by Persian influence, but also the edges overcast in bright contrasting colours, and the wide end selvages embroidered in bright colours. Of course, the warp is of wool, and the end fringes interesting.

INDIAN RUGS

The weaving of Oriental rugs in India became important in the latter half of the sixteenth century, when Persian weavers were imported and Shah Akbar, following the example of Persian princes, set up looms in his palace. A number of other Indian dignitaries imitated his example, and rugs of the highest type were woven, in designs that were based on Persian designs, but were apt to be much more naturalistic, as is illustrated by the splendid examples in the Altman Collection in the Metropolitan Museum. In the last half of

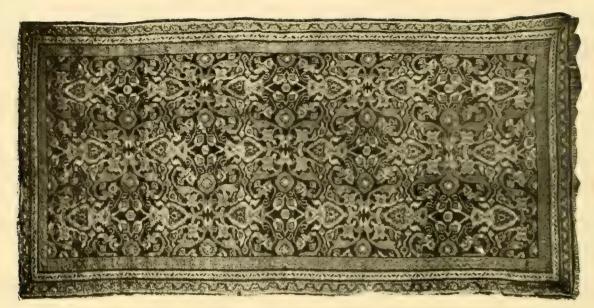


Plate XXII--KHORASSAN RUG WITH "VASE" DESIGN

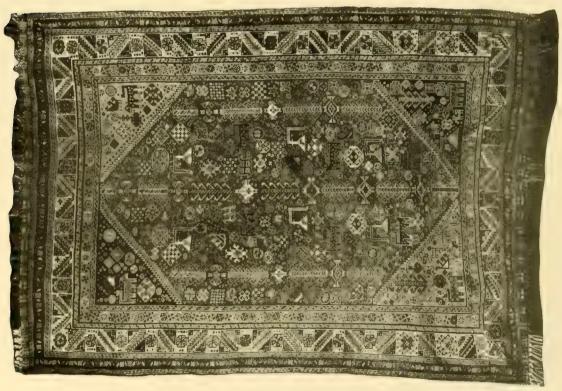


Plate XXIII QUAINT AND CURIOUS SHIRAZ RUG

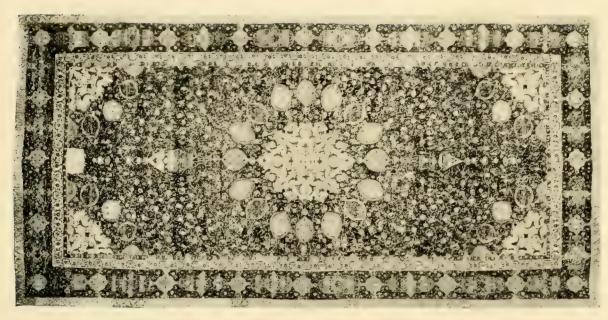


Plate XXIV—THE GREAT ARDEBII, RUG IN THE SOUTH KENSINGTON MUSEUM 17 feet 6 inches by 37 feet 10 inches. Woven at Kashan in Persia in 1540, and signed with place and date

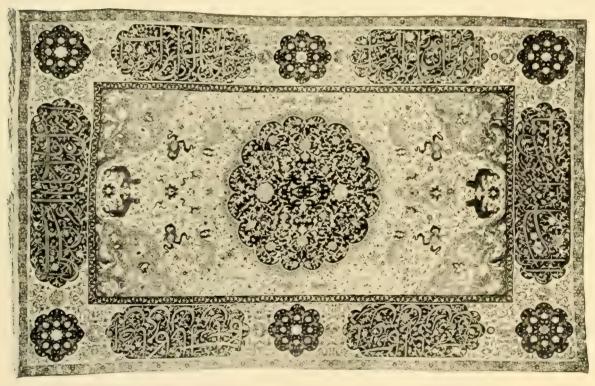


Plate XXV PERSIAN EARLY SEVENTEENTH CENTURY RUG Woollen pile broché with gold and silver on silk web. Collection of Prince Alexis Lobanof-Rostowsky

DECORATIVE TEXTILES

the nineteenth century, however, the industrial development of India under English rule, and especially the introduction of rug weaving into the jails, substituted modern factory for primitive methods, and twenty-five years after the International Exhibition of 1851 in London, where Indian rugs of extraordinary merit had been exhibited, the rugs in India had become a factory product. Western designs had been introduced, bad dyes were common, and prison-made fabrics flooded the English market. It is only fair to add that during the last few years the quality of India rugs has greatly improved, and reproductions not only of Persian but also of Chinese rugs, are made that compare favourably with the originals.

Credit for illustrations: Plates III, VI to XI, Metropolitan Museum of Art; Plate V, Howard Greenley; Plates XII to XXIII, A. U. Dilley.

CHAPTER XII

TAPESTRIES AND THEIR IMITATIONS

Of all textures, tapestry is the most durable. The complete interlocking of warp and weft produces a web that will not ravel, and that violence and dust and moths destroy with difficulty. Whilst no large picture tapestries survive to us from Greek and Roman times, we have a wealth of them from the fifteenth and succeeding centuries, and some from the fourteenth. Of small decorative and primitive tapestries, without elaborate picture effects, and without a highly developed system of hatchings (hâchures), we have many ancient Peruvian and Coptic, and some ancient Greek and Egyptian and Chinese examples, the last in silk.

Tapestry is a broad word. In its narrowest and most exclusive sense, it means woven pictures with horizontal ribs and vertical hatchings, of the type developed in the Netherlands and northern France during the fourteenth, fifteenth and sixteenth centuries. In its broadest sense it includes all coverings for floors, walls and furniture—even pile rugs, and wall paper, and leather—and in this sense might have been correctly used as the title of this volume.

Its meaning varies according to the place where you find it. It ranges in New York from ten thousand dollars a yard on Fifth Avenue, to ten cents a roll on Sixth Avenue. A Van Orley "Last Supper," or a Beauvais-Boucher like the one illustrated in colour as the frontispiece of my book on Tapestries, is much better value at the former price than bad wall paper badly printed with a bad design is at the latter price.

IMITATION TAPESTRIES

If you ask for a tapestry in a wall paper shop, the salesman will show you a paper called tapestry or verdure, because modelled after *jacquard* verdure tapestries. The jacquards themselves you can see

DECORATIVE TEXTILES

in the upholstery section of any large department store. (For illustrations of their texture, see Plate F 3, 4 of Chapter IV.) These are the goods ordinarily called tapestries in the merchandise upholstery trade. The all-cotton ones are very inexpensive, even those with landscape and figures in addition to verdure, like the one illustrated on Plate I, which is twenty-seven inches high. In greater height, and finished with an appliqué border or woven gilt frame, come larger and more elaborate copies of real tapestries and paintings, particularly those of peasant scenes designed by the famous seventeenth century painter, Teniers. Sometimes these jacquard tapestry panels are sold as real tapestries at a price as ridiculously low for what they are implied to be, as it is high for what they are. I have several times been asked to pass on such tapestries, once by a purchasing agent whose client was willing to part with ten thousand dollars on account of the Ch. Le Brun Pinxit woven into the fabric.

Other imitation tapestries are those block-printed by hand, like "hand-blocked" chintzes and wall papers, but on a coarse horizontal rep in simulation of real tapestry texture. The general effect is much more tapestry-like than that of the jacquards, all but the simplest of which resemble petit point needlework, having a square point with lines running both ways instead of strongly marked ribs. The printed tapestries come in sets of sixty-inch widths that hang vertically like wall paper, and are so planned that widths can be omitted or repeated to accord with the wall space without spoiling the continuity or apparent completeness of the picture. The effect of these printed tapestries on a large scale, seen at a little distance, is far more agreeable than that of the jacquard tapestry panels described above. They also are very inexpensive. One set of the prints is based on the ancient Gothic fifteenth century Trojan War series of tapestries; another shows the Foundation of Rome.

THE WEAVE OF REAL TAPESTRIES

On the simplest form of primitive tapestry loom, the weaver's left hand pulls the leashes (lisses) that form the new shed of the warp, while his right hand passes the bobbin that carries the weft, and passes it only as far as the colour that it carries is to show on the face of the finished cloth. On the way out (to the left) the weft covers the even warps; on the way back, the odd warps, thus forming a complete pass. The warp threads being hard-spun and com-



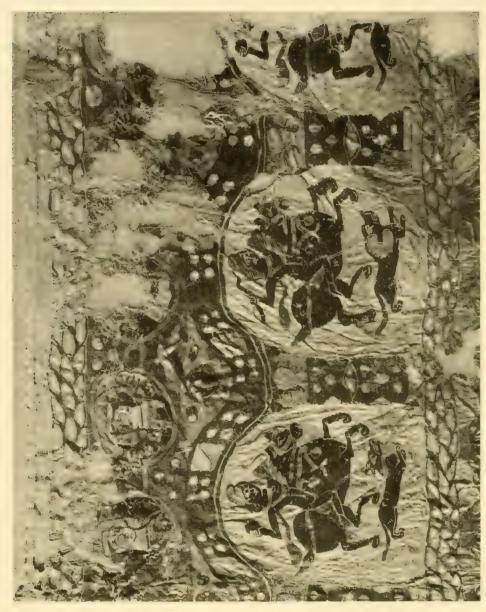


Plate II—PRIMITIVE COPTIC TAPESTRY DATING FROM THE FIFTH CENTURY A. D. In the Metropolitan Museum

paratively coarse, and the weft threads fine and soft, the latter when pressed home with the point of the bobbin or with the comb, cover and completely hide the warp threads that make their presence manifest as ribs. In other words real tapestries are ribbed or rep fabrics with surface consisting entirely of weft threads. They are also exactly alike on both sides (except for the loose irregular loops of thread on the back). In this they are unique.

Between the real tapestry loom as still used at the Gobelins and Beauvais, Aubusson and Merton, New York, Rome, Madrid, Berlin and elsewhere, and the ordinary type of hand loom, the difference is fundamental. In the latter the bobbin is not passed with the hand, but thrown or knocked the full width of the warp in a shuttle. Real tapestry is a bobbin fabric; the woven imitations are shuttle fabrics.

SHUTTLE AND NEEDLE TAPESTRIES

Of these shuttle imitations, the cleverest and best are like the one illustrated in Plate V. They are made on a special kind of hand loom, with a double warp. Each warp consists of two threads, the one coarse and the other fine, which are sometimes treated as one in the process of weaving, and sometimes separately. In the latter case a double cloth is formed and the surface shows a delightful irregularity and a texture resembling, or rather suggesting the qualities of, ancient Gothic pieces that have been softened by the roughness of the hand of Father Time. Shuttle tapestries of the doublewarp type can be made only in comparatively simple verdure and landscape designs, and in no way compete with real-tapestry picture panels. But they are decoratively superior to new real-tapestry verdures of the same grade.

Another imitation of real tapestry is needlework tapestry, so much used to upholster furniture in the English styles of the seventeenth and eighteenth centuries. It is in cross stitch, and does not have strongly marked ribs running in one direction, but a square point and lines running in both directions. When part of the surface is in fine stitch (petit point), such tapestries are properly called petit points (Plates VIII b, XIV, XVIII, XIX, XXIII in Chapter VI).

PAINTED TAPESTRIES

Still another kind of imitation tapestry is made by painting on canvas, usually ribbed to give the suggestion of tapestry texture.

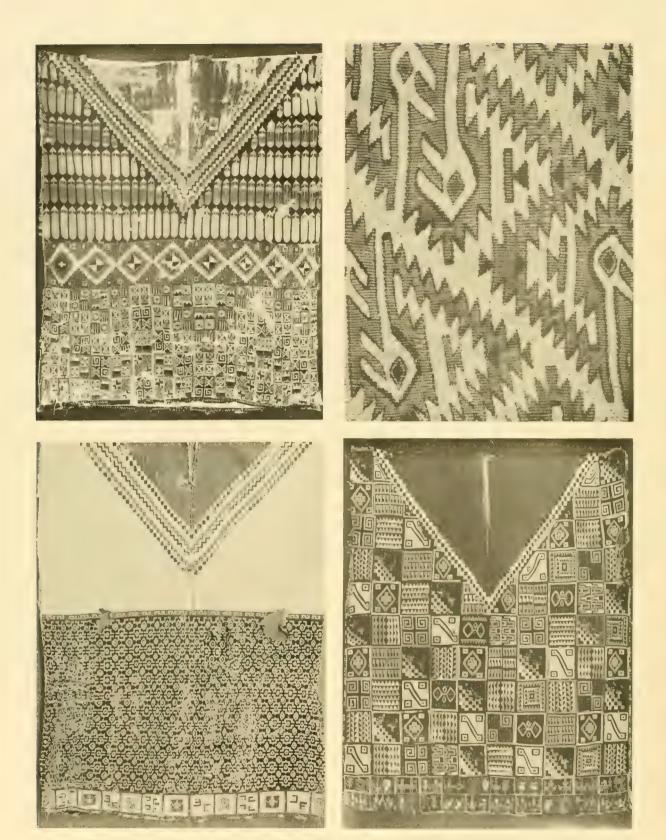


Plate III - ANCIENT PERUVIAN TAPESTRIES AND TAPESTRY FIGURED FABRICS In the American Museum of Natural History, New York

These painted imitations range from half-size copies of the famous Lady with the Unicorn set of Late Gothic tapestries at the Cluny Museum in Paris, to the detestable "Gobelin panels," the manufacture and sale of which brought prosperity for a number of years to a New York shop now extinct, whose proprietor used to repeat with great gusto a certain quotation from P. T. Barnum about humbugging the public. It is a favorite diversion with the editors of Sunday newspapers to print long stories about the success of some young lady in making with the brush, reproductions of ancient Gobelin and Flemish tapestries that "cannot be told from the original, even by an expert."

In a carpet and rug store, tapestry is an imitation of brussels, made by printing the warp before weaving; or the imitation of that imitation, made by printing after weaving (Plate VII in Chapter VIII).

AUBUSSON TAPESTRIES

For over a century the world centre of commercial real-tapestry weaving, that is of tapestry weaving for the trade and the open market, has been the little mountain town of Aubusson in France, two hundred miles south of Paris (Plate IV). At the Paris Exposition of 1900, the exhibits of three Aubusson tapestry manufacturers were of such excellence as to be awarded grand prizes—the same award as given to the government works at the Gobelins and at Beauvais, the product of which is reserved for government buildings. Of the Aubusson reproductions of the Château de Blois and the Château de St. Germain from the Louis XIV series of Royal Residences, after Lebrun; of the panels Venus and Jupiter from Claude Audran's Portières of the Gods; and of one of the Hunts of Louis XV, after Oudry, the jury said: "They are so like the originals as to be mistaken for them."

According to local tradition, the tapestry industry was established at Aubusson in the year of our Lord 732, by stragglers from the Saracen army that Charlemagne's grandfather, Charles Martel, defeated near Tours, thus saving Europe from Mohammedanism and for Christianity. In 1664 the tapestry makers and merchants of Aubusson spoke of the industry as "established from time immemorial, no person knowing the institution of it." There is, however, little probability that picture tapestry weaving at Aubusson antedated the fourteenth century development of the art in Flanders, or that any

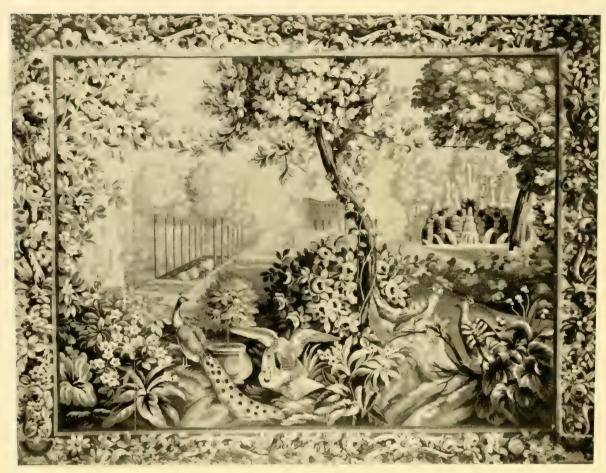


Plate IV -MODERN AUBUSSON VERDURE TAPESTRY WITH LANDSCAPE AND BIRDS



Plate V - VERDURE "DOUBLE WARP" IMITATION TAPESTRY WITH BORDER Woven on a band loom

tapestries of great importance were made in Aubusson and the neighing town of Felletin before the eighteenth century.

In 1664, according to a report made to Colbert, the manufacture of tapestries at Aubusson appeared to be in a bad way. The number of weavers had decreased, there was a lack of good cartoons, the wool was coarse and the dyes were bad. So it was ordered that "a good painter chosen by the Sieur Colbert, should be maintained at the expense of the King to make designs for the tapestries manufactured in the said town; and there should also be established in it a master dyer to colour the goods employed in said manufactory." But the order never appears to have been executed, and a few years later in 1685, on the Revocation of the Edict of Nantes, two hundred of the best weavers of Aubusson had to leave France because they were Protestants. Not until 1731 in the reign of Louis XV was a serious attempt made to revive the industry. Then a painter and a dyer were actually sent, the painter being Jean Joseph Dumons, who had acquired fame at Beauvais during the Régence as one of the designers of a Chinese set of tapestries in six pieces, and who later cartooned Boucher's Chinese set. More important even than the painter and splendidly supplementing his work, were the designs and cartoons sent from Beauvais to Aubusson during the next twenty years. From these were woven, in the eighteenth century, Aubusson tapestries of the splendid type illustrated in Plates VI, VII, VIII, loose in texture and with luminous grounds, possessing an excellence peculiar to themselves, but none the less admirable because unlike the product of Gobelin, Beauvais and Flemish looms. The Aubusson makers had been authorised in 1665 to use the title "Royal Manufactory," and an ordinance of 1732 provided that their tapestries should be distinguished by weaving the name of the town and the name or initials of the weaver into the border. Consequently we need not be surprised to find many eighteenth century Aubusson tapestries signed in the bottom selvage in the same manner as the two Chinese tapestries after Boucher in the Le Roy collection: M. R. D'AUBUSSON, PICON (Royal Manufactory of Aubusson, Picon). Nor need we be surprised at all to often find the signature wanting, as the bottom selvage of a tapestry is the part of the textile that is most apt to wear out or disappear first.

The Aubusson tapestry illustrated in Plate VII, entitled the Strife of Agamemnon and Achilles, bears the signature of Babouneix.



Plate VI "THE BIRTH OF BACCHUS". An Aubusson tapestry of the eighteenth century.

It is one of a set of five tapestries, complete with tapestry rug and furniture coverings, made in the last half of the eighteenth century to decorate the room in Greece where they hung for over a century until recently brought to New York. On account of the draperies in the style of Louis XVI that frame the top and sides of the different pieces, the set is commonly called the "Greek drapery" set. Two other tapestries of this set, the Reception of Paris by Helen, and the Death of Phaeton, were exhibited at the Buffalo Tapestry Exhibition, and illustrated on page 253 of the February 1915 number of Good Furniture Magazine. The composition of all the panels is excellent, particularly of the Agamemnon and Achilles, in which the priest on the left of the altar exhorts the two disputants to make up their quarrel. That the altar is that of Jupiter is shown by his image behind, and by his eagle with thunderbolts in front.

The Birth of Bacchus, illustrated in Plate VI, is not surpassed by any Aubusson tapestry that I have ever seen. It has the characteristic Aubusson texture of the period, and surpasses contemporary Beauvais and Brussels tapestries of finer point and more delicate effect. Like many eighteenth century tapestries it was woven without a border, probably to be panelled in the wall with wooden moulding around.

The Transformation of Jupiter, illustrated in Plate VIII, shows the Royal eagle with thunderbolts in the upper left corner, whilst the Celestial King himself occupies the foreground in the form of a beautiful white bull, into which, it will be remembered, he transformed himself for the purpose of beguiling the maiden Europa, with whom upon his back he swam across the Hellespont, now called the Dardanelles, where the battleships of the Allies tried to destroy the Turkish forts on the way to Constantinople, and which Lord Byron, in emulation of Jupiter, and of Leander, the story of whose love for Hero is pictured in a set of Mortlake tapestries in the Royal Swedish collection, swam at the beginning of the nineteenth century. The Transformation of Jupiter is one of eight tapestries designed for Beauvais (see Chapter XV) by Jean Baptiste Oudry, the famous art director of Beauvais and later of the Gobelins, to whose efficiency was due the extraordinary prosperity of the Beauvais works in the second quarter of the eighteenth century, and consequently of the Aubusson works that copied Beauvais models. The largest of the five of the set now in America pictures the Palace of Circe, and all illustrate



Plate VII -"The Strife of Agamemnon and Achilles"



Plate VIII—"The Transformation of Jupiter"
AUBUSSON TAPESTRIES OF THE EIGHTEENTH CENTURY

transformations of men into beasts, from Ovid's Metamorphoses. The designs are vivid with life and executed with the greatest skill.

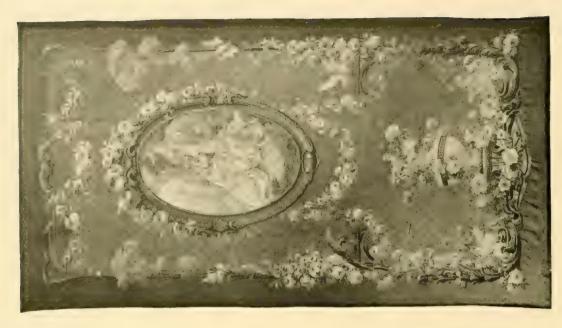
WILLIAM MORRIS AND BURNE-JONES

Still active at Merton, a village near London, in England, are the tapestry works established in 1881 by William Morris. Only recently was completed the Arming of the King, a large historical tapestry adapted from Bernard Partridge's painting, but started long before the breaking out of the war with Germany. The Merton tapestry, illustrated in Plate IX, Two Angels with Harps, is one of a pair designed and made for Eton College Chapel. It is interesting to note in the top selvage the signature of the superintendent, J. H. Dearle, and of the three weavers, W. Taylor, R. Ellis, J. Martin, who express the pious wish: Nobis nostrisque omnibus propitietur deus (God have mercy upon us and all of ours).

The significance of the Merton tapestry works in the artistic development of tapestry, or rather in the revival of tapestry, has been much greater than would be expected from the size of the plant. This was due partly to the genius of Burne-Jones who designed the personages for most of the important tapestries, and of Morris who designed the decorative backgrounds and borders, and put in the colour. and superintended the execution on the loom, after having trained first himself and then his apprentices. All other tapestry revivals imported workmen from the centre of tapestry production: Gobelins and Mortlake from Flanders in the seventeenth century; Madrid, Antwerp and Petrograd from Beauvais in the eighteenth century; Windsor and Williamsbridge from Aubusson in the nineteenth century. But Morris did it with his own hands. He had a loom set up in his bedroom at Kelmscott House in Hammersmith, and in the early mornings of four months of the year 1879 spent no less than 516 hours at it. The method he studied out from an old French official handbook of pre-Revolutionary days. Perhaps the best evidence of the successful co-operation of Morris and Burne-Jones is that the Holy Grail set of four was awarded a Grand Prize at the French Exposition of 1900, the only non-French tapestries ever so honoured.

AMERICAN TAPESTRIES

In 1893 the industry was established in America by the late William Baumgarten, and still flourishes at the splendidly equipped



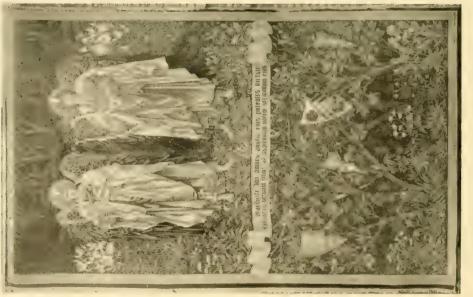
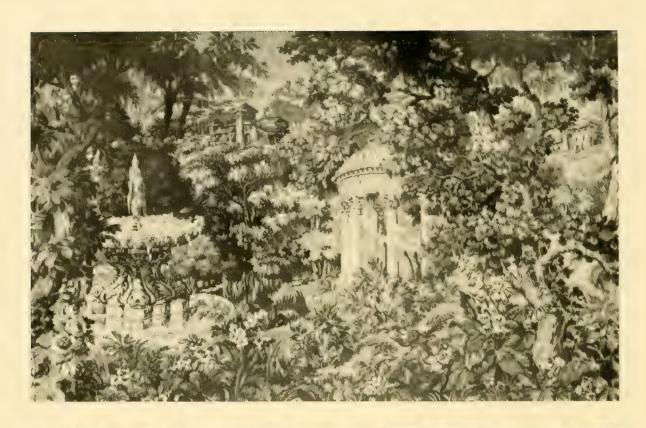


Plate IX A MERTON TAPESTRY Two angels with barps

Plate X BOUCHER MEDALLION ON DAMASK GROUND A modern tapestry woven at Williamsbridge, New York



Plate XI TAPESTRY DESIGNED BY ALBERT HERTER AND WOVEN IN AMERICA



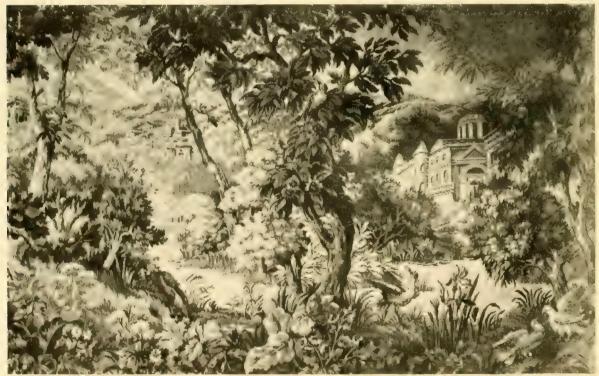


Plate XII JACQUARD TAPESTRIES WOVEN IN AMERICA



Plate XIII—TAPESTRY SCREEN PANELS WOVEN IN NEW YORK



Plate XIV - FOUR EIGHTEENTH CENTURY SPANISH TAPESTRIES
The upper two after Goya, the lower two in the style of Teniers

plant in Williamsbridge in New York City, under the management of M. Foussadier, who had been employed at the Royal Windsor Tapestry Works in England, that were shut down in 1887 after existing from 1876 with the aid of royal patronage. The first piece of tapestry woven in America (excluding the primitive ones made by Indians, Mexicans and Peruvians) was a chair seat, the exhibition of which at the Buffalo Tapestry Exhibition excited great interest. There are Williamsbridge tapestries in many American residences, and of one New York palace they are the most important part of the furnishing, being used on floors, walls and furniture.

During the past seven years other tapestry plants that are still in operation have been established in New York City by Albert Herter, and at Edgewater, N. J., by L. Kleiser. Especially interesting is the set picturing the Story of New York, woven by the Herter looms for the McAlpin Hotel, and hanging on the walls of the mezzanine corridors over the office. But perhaps the best idea commercially is that of the maker whose tapestry reproductions of Old English needlework are found useful and appropriate for the upholstery of chairs and sofas. Technically the most perfect tapestries woven in America are the two Boucher portières that received a grand prize at the St. Louis Exposition. One of them is illustrated on Plate X. But this is of course in Gobelin texture of the last half of the eighteenth century, and the greatest tapestries of the future, as of the past, will be those woven in the texture of the first quarter of the sixteenth century, which William Morris tried, with partial success, to imitate. It is a texture that can be perfectly reproduced today by those who understand it.

BERLIN, ROME, MADRID, PETROGRAD

The output of the tapestry looms in operation in Berlin, Rome and Madrid is unimportant as regards both quantity and quality, although the San Michele plant at Rome is a survival of the one established in 1710 by Pope Clement XI, and the Santa Barbara plant at Madrid of the one established in 1720 by Jacques Vandergoten under the protection of King Philip V. The first art director of San Michele was Andrea Procaccini, who afterwards went to Spain where he designed for the Santa Barbara looms a set picturing the Story of Don Quixote, recently lent by the King of Spain for exhibition at the Hispanic Museum in New York City (Plate XV).



Plate XV "DON QUIXOTE KNIGHTED" Spanish tapestry designed by Procaccini and woven by Vandergoten's sons

The Russian Imperial Tapestry works, established at Petrograd by Peter the Great in 1716, were discontinued in the middle of the nineteenth century. The primitive and peasant tapestries, and developments from them, woven in the Scandinavian countries, and elsewhere by individual workers, have little merit. Most of these are flat without ribs, and many have vertical warps. None of them show any comprehension of the value of hatchings, and of what line structure means in tapestry composition and tapestry execution.

Fortunately we Americans are not ashamed to be inspired by the greatness of past centuries, and are quite as willing to learn from other peoples' ancestors as from our own. I believe the time has come for a rebirth of tapestry and the other decorative arts in America, on a scale equal to that of the Renaissance, provided only that we shun passionately the errors due to ignorance and inexperience.

Credit for illustrations: Plate II, Metropolitan Museum of Art; Plate III, American Museum of Natural History; Plates IV, V, J. H. Thorp & Co.; Plates VI to VIII, P. W. French & Co.; Plate IX, Morris & Co.; Plate XI, the Herter Looms; Plate X, Wm. Baumgarten & Co.; Plate XIII, Pottier & Stymus.

CHAPTER XIII

GOTHIC TAPESTRIES

Nearly all of the important tapestries that survive were woven in the fifteenth century, the sixteenth century, the seventeenth century or the eighteenth century. They are either Gothic of the fifteenth century, Renaissance of the sixteenth century, Baroque of the seventeenth, Rococo or Classic of the eighteenth. However, the periods overlapped to some extent, and we find Gothic tapestries still being woven during the first few years of the sixteenth century, Renaissance tapestries during the first few years of the seventeenth century, and Baroque tapestries during the first few years of the eighteenth.

Nearly all of the Gothic tapestries that survive were woven in the fifteenth century or the first few years of the sixteenth. From the fourteenth century we have but one set of tapestries, the famous Apocalypse set that is preserved in the Cathedral at Angers, France. Besides this set there are only a few scattered and isolated pieces, mostly crude and small in size. This in spite of the fact that large and magnificent tapestries were undoubtedly woven during the fourteenth century.

Our study of Gothic tapestries, then, will confine itself almost exclusively to tapestries woven in the fifteenth century or the first few years of the sixteenth. It will also confine itself almost exclusively to tapestries woven within two hundred miles of Arras and Brussels, the first of which cities was the centre of tapestry weaving during the fourteenth and first half of the fifteenth centuries; the second of which cities became the centre of tapestry weaving after Arras was ruined in 1477.

TEXTURE OF GOTHIC TAPESTRIES

Gothic tapestries, more than any others, illustrate the full and complete virtues of tapestry texture. Gothic tapestries, more than



Plate I DAVID AND BATHSHEBA TAPESTRY. PART OF THE FAMOUS LATE GOTHIC "STORY OF DAVID," IN THE CLUNY MUSEUM, PARIS



Plate II- "TITUS," PART OF A FIFTEENTH CENTURY GOTHIC TAPESTRY In the Metropolitan Museum



Plate III A GOTHIC "MILLE-FLEUR" WITH ANIMALS
Owned by the late Alexander W. Drake

GOTHIC TAPESTRIES

any others, illustrate the skilful and complete use of hatchings, combined with horizontal ribs in line contrast, to produce the appearance of form. As every one knows or should know, the surface of wall tapestries is not flat but consists of horizontal ribs in relief; in other words, the surface of wall tapestries is a horizontal rep. The ribs mark the presence beneath the surface of the warp threads, which are the threads that run the long way of the loom. These warp threads do not show on the surface of the tapestry at all, being entirely covered by the finer weft threads. The weft threads are not put in with a shuttle, but with bobbins. They all pass in plain weave over and under alternate warp threads.

Whilst the surface of the high lights of a tapestry, as well as of the shadows, is comparatively plain and solid in tone like painting, the middle lights between consist not of solid tones, but of vertical spires of colour that etch into each other, blue and yellow, for example, forming gradations from blue to yellow that are most intricate and beautiful. This blending of colours by hatching is called "mixing colours on the loom," and is indispensable if true tapestry texture is to be obtained.

I have said that the middle lights are made up of hatchings. In the plain or solid-coloured high lights, the horizontal ribs stand out boldly; but in the middle lights, the horizontal ribs are concealed beneath the coloured hatchings. Consequently, there is an extraordinary contrast between the horizontal ribs of the high lights, and the vertical hatchings of the middle lights, as well as between the vertical hatchings of the middle lights and the horizontal ribs of the shadows. The result is that the high lights are forced out to the front by the line contrast, that is to say, by the contrast between horizontal lines in relief and vertical lines in colour; are forced out to the front farther than they can be forced out in any other form of art. We have, to be sure, line contrasts in line engravings, but it is a contrast of flat lines without relief, and usually in one colour. In tapestries. the line contrast of horizontal with vertical is intensified by the fact that it is also a contrast of relief with colour. These line contrasts are what make possible the extraordinary drapery effects obtained in Gothic tapestries like that illustrated on Plate VII. my mind this "Prophecy of Nathan" is a perfect exemplification of the brilliant possibilities of tapestry texture. To be sure, this tapestry is not rich with gold like the famous Mazarin tapestry long lent by



Plate IV "THE REDEMPTION OF MAN," A LATE GOTHIC TAPESTRY RICH WITH GOLD Bequeathed to the Metropolitan Museum by the late Col. Oliver H. Payne

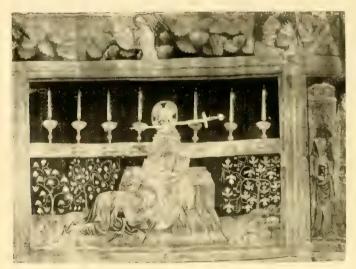


Plate V "THE SON OF MAN," A FOURTEENTH CENTURY GOTHIC TAPESTRY Of the famous Apocalypse set at Angers, France



Plate VI—LOWER RIGHT CORNER OF "THE REDEMPTION OF MAN" Picturing Moses with the twelve commandments



Plate VII "THE PROPHECY OF NATHAN," A MAGNIFICENT LATE GOTHIC TAPESTRY Owned by Mr. Edward A. Faust, of St. Louis

GOTHIC TAPESTRIES

Mr. Morgan to the Metropolitan Museum and now owned by Mr. Widener and hanging in his home in Philadelphia. Nor is it as fine in texture as the Mazarin tapestry. But because of its comparatively coarse texture and pronounced hatchings, it does illustrate what can be accomplished by line contrast much more obviously than that can be illustrated in finer texture.

DESIGNS OF GOTHIC TAPESTRIES

It will be noticed that Early Gothic tapestries seldom have a border. It will also be noticed that Late Gothic tapestries usually have a narrow flower-and-fruit or mille-fleur border about six inches wide. Instead of border, the earlier Gothic tapestries often have captions at top and bottom, in Latin at the bottom, and in Old French at the top, with nothing at the sides. The only Early Gothic tapestry with which I am acquainted that originally had a border all around it is the famous "Seven Sacraments" tapestry, five fragments of which, about half of the original tapestry, were presented to the Metropolitan Museum several years ago by the late J. Pierpont Morgan. This tapestry did originally have a border all around, consisting of a brick wall with floriation outside. This brick wall and the way it was handled made a very interesting study that was published by me in the English Burlington Magazine in December, 1907.

When Gothic tapestries have a sky-line at all, it is very high, that is to say, there is very little sky showing. There are no plein air effects. Every inch of the surface is filled with ornament or design. There are no blank spaces. Tapestry texture does not flourish on blank spaces. A painter utilizes blank spaces to get contrasts between shadows and high lights. Blank spaces and plein air effects come natural to paintings. They do not come natural to tapestries, and when they were introduced into tapestries in the course of the sixteenth century, and more fully and completely in the seventeenth century, tapestry gradually lost all of its best qualities, and finally in the eighteenth century came to be hardly more than a woven imitation of painting. In the fifteenth century, tapestry texture was so thoroughly understood and so much in vogue that one might rather say that painting imitated tapestry than that tapestry imitated painting. In those days every gentleman had real tapestries, which were then called arras (named after the little city of Arras that was the chief centre of production) in his residence, while those who could not



Plate VIII—ONE OF THE FAMOUS HARDWICKE HALL HUNTING TAPESTRIES Owned by the Duke of Devonshire.



Plate IX "THE WOOD-CUTTERS," A FAMOUS LATE GOTHIC TAPESTRY In the Musée des Arts Décoratifs in Paris

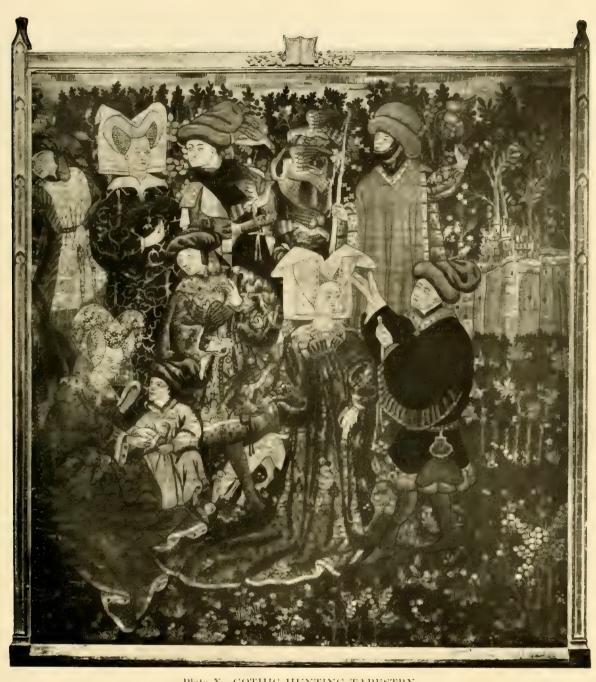


Plate X GOTHIC HUNTING TAPESTRY In the Minneapolis Museum of Fine Arts

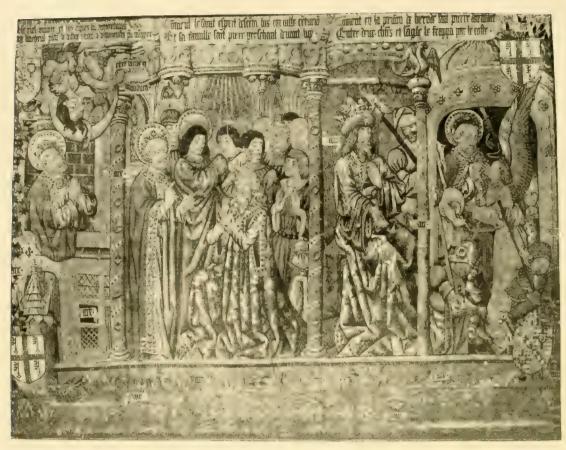


Plate XI—PART OF THE "ST. PETER" SERIES Given to the Beauvais cathedral in 1460



Plate XII "JOSEPH PRESENTING JACOB TO PHARAOH" A fifteenth century Gothic tapestry lent to the Boston Museum of Fine Arts by Mr. Frank Gair Macomber

afford real tapestry utilised paintings instead for the decoration of their walls. These paintings they called *counterfeit arras*.

Of course, the general effect of Gothic tapestries is like that of Gothic cathedrals, a vertical effect. This vertical effect is produced not only by the predominance of the vertical hatchings of which I have just been speaking, but also by the main lines of the figures and of the composition. There are introduced a great many upright figures and few horizontal lines or bands. Gothic art is a vertical art, as contrasted with Classic art which is a horizontal vs vertical art, or a balanced art with the horizontal holding down the vertical.

As tapestries approached the Renaissance, horizontal effects begin to be accentuated. The sky-line gets lower and lower. The architectural and decorative ornament, and the costumes, begin to look more like the Renaissance. Shoes cease to be pointed and the toes become round, later spatulate. Hats become flatter. Arches become less pointed and begin to resemble the so-called Tudor arches.

One of the most delightful features of Late Gothic tapestries are the *mille-fleur* effects. These mille-fleur effects are illustrated very beautifully on Plate III; also in the ground of Plate XIII, and of Plate XVII; and on Plates XI and XIII of Chapter XVI.

OLDEST SET IN THE WORLD

The oldest set of tapestries in the world is the Apocalypse at Angers in France, mentioned above, one piece from which the "Son of Man" is illustrated on Plate V. This tapestry was woven in the latter part of the fourteenth century, for the French king's brother, the Duke of Anjou. The designs were copied from an illuminated manuscript of the Apocalypse, which the Duke of Anjou borrowed from his royal kinsman, but never took the trouble to return.

Originally there were seven pieces in the set, showing ninety separate and distinct scenes, eighteen feet high with a combined width of 472 feet—in other words, 944 square yards of intricately woven picture tapestry. Some of the ninety scenes contained each more than twenty-five personages. Today the height of the set is only fourteen feet and the total width 328 feet. The floriated band at top and bottom, and the inscriptions, have worn away in the course of five hundred years. Of the ninety scenes, seventy remain intact, and there are fragments of eight others, while twelve have entirely disappeared.

The subject of the scene illustrated on Plate V, from the



Plate XIII - "THE CRUCIFIXION, LAST SUPPER AND RESURRECTION"
A fifteenth century Gothic tapestry in the Chicago Art Institute
Presented by the Society of Antiquarians



Plate XIV GOTHIC "CREDO" TAPESTRY In the Boston Museum of Fine Arts

Apocalypse is to be found in Chapter I, verses 12 to 20, of the Book of Revelation.

Especially interesting, and typical of the war-like tapestries of the first half of the fifteenth century, is the "Capture of Jerusalem by Titus" that hangs in the armour room of the Metropolitan Museum, New York. Only part of this tapestry is illustrated on Plate II, but in it Titus can be seen sceptre in left hand, crown upon his head, while one of his generals draws his attention to the Ark of the Tabernacle, and to the rich plate which has been taken as plunder from the Jewish temple.

One of the most striking scenes in the rest of the tapestry is where the soldiers are represented as searching the Jews who flee from the captured city, or city about to be captured, for their money. Titus in his generosity had decreed that all the Jews who gave up what money they had, be allowed to go free. But the soldiers heard that some of the Jews swallowed their gold and silver in order to be able to take it with them through the Roman lines. The scene in question shows the soldiers searching the Jews for the money thus concealed. The scene would be gruesome in painting, or indeed in any form of art except tapestry, but because of the peculiarly decorative texture of tapestry, the gruesomeness is so toned down as hardly to be offensive at all.

HARDWICKE HALL TAPESTRIES

The most important Gothic tapestries in England are the four so-called Hardwicke Hall tapestries, belonging to the Duke of Devonshire, and lent by him to the Victoria and Albert Museum at South Kensington. These hunting tapestries exemplify wonderfully the effectiveness of tapestry texture, and also throw vivid light upon the customs of the time, especially upon the hunting customs, at a period when hunting and hawking were the favourite sports of royalty and nobility. One of these famous tapestries is shown on Plate VIII.

A particularly keen interest is attached to this set of four tapestries for America, because of the fact that the late director of the Metropolitan Museum, Sir Purdon Clarke, first suggested that they be re-assembled out of the fragments into which they had been cut for use as portières. Under his direction the fragments were assorted and repaired, the colours being slowly and with difficulty studied out from the unfaded back, and reproduced in coloured thread upon the



Plate XV—"THE TRIUMPH OF THE VIRGIN"
Gothic tapestry in the Royal Spanish collection

surface. This, of course, illustrates the fact that the backs of tapestries fade less than the faces; indeed, they often fade not at all, being shielded from the light.

PEACE TAPESTRIES

Plate XI illustrates three scenes from a famous set of tapestries presented to the Cathedral of Beauvais in 1460, by the then Bishop of Beauvais, Guillaume de Hellande. The coat-of-arms of the bishopric of Beauvais is seen in the upper right and lower left corners, whilst the family coat-of-arms of Bishop Guillaume de Hellande is seen in the upper left and lower right corners. The reason for the paix that appears so many times on the surface of the tapestries, not only of this tapestry, but of the whole set, was the Bishop's joy at the termination of the Hundred Years War between England and France.

The scenes illustrated are:

1—St. Peter's Vision at Joppa, 2—Cornelius Baptised at Cæsarea, 3—St. Peter Imprisoned by Herod at Jerusalem.

This is a most extraordinary set of tapestries, several of which are still missing. One of those formerly missing is now in the Museum of the Gobelins. Two of the missing ones, which had been lost since the time of the French Revolution, were recently brought to the United States, and constitute what is one of the greatest Gothic treasures in this country still to be acquired by some great museum.

MINNEAPOLIS, BOSTON AND CHICAGO

Plate X illustrates an exquisite piece of Gothic hunting tapestry given to the Minneapolis Museum of Fine Arts, at the suggestion of the Director, Joseph Breck. Mr. Breck was very wise to select this piece. He very rightly suggests that it was probably woven at the same time and place as the famous Hardwicke Hall tapestries. It may be part of one of the set. Notice particularly the costumes of the gentlemen and of the ladies, and most of all, the light that is thrown on the royal sport of falconry.

Plate XII illustrates a scene from the "Story of Joseph" lent by Mr. Frank Gair Macomber to the Boston Museum of Fine Arts. It pictures the presentation of Jacob to Pharaoh by his son Joseph. The story is told by the old French verses above in Gothic lettering, and the different characters are identified by having their names woven



Plate XVI—"THE ADORATION OF THE MAGI" Late German Gothic tapestry in the Metropolitan Museum



Plate XVII—"THE MASSACRE OF THE INNOCENTS" Formerly in the Hoentschel-Morgan collections

into their garments, joseph, zebulun, pharaoh, levi, judas, reuben. The Latin inscription reads, translated: "In the year of the World 2500 came Jacob as ordered. Pharaoh made great joy over him, and as a reward to Joseph gave his father the land of Goshen for which he asked."

The tapestry illustrated on Plate XIII, belonging to the Chicago Art Institute, resembles closely (although it is much smaller) the famous Crucifixion now in the Brussels Museum which was bought at the Sonzée sale in 1901 for \$14,000. The arrangement of the two tapestries is similar. The Crucifixion is in the middle, with the Resurrection on the right; but on the left the Brussels tapestry has the Bearing of the Cross, while the Chicago tapestry has the Last Supper. Instead of the two thieves that appear in the Brussels tapestry, the Chicago one has two angels and fewer personages, as is consistent with its size.

One of the most important tapestries in the world is the Gothic Crucifixion with other scenes, the gift to the Boston Museum of Fine Arts of Mrs. John Harvey Wright. This tapestry illustrated on Plate XIV was purchased in Spain in 1889. It has been carefully studied by Miss Flint, the curator of textiles at the Boston Museum and was illustrated and ably described by her in the Museum Bulletin for February, 1909. The tapestry was woven near the end of the fifteenth century, probably in Brussels, and is fourteen feet two inches high by twenty-seven feet three inches wide. There are four scenes separated by Gothic jewelled columns. The two outer scenes are widest, the one on the right picturing the Crucifixion, the one on the left the Creation of Eve. The two inner scenes picture the Baptism of Christ and the Nativity. At the top of the Baptism panel appears God wearing the Imperial Crown, the Imperial Globe and Cross in His left hand, dominating not only that panel, but also the three others.

The lower third of the tapestry is occupied by eight seated personages whose rich robes give wonderful colour, and conceal the lower part of the jewelled columns, thus tying the four panels closely together. These eight personages, whose names Gothic captions make clear, are paired Old Testament with New Testament, from left to right: Jeremiah and Saint Peter, David and Andrew, Isaiah and James, Hosea and John—prophets and apostles intimately associated with the life of Christ. All but Isaiah are luxuriously robed in bro-

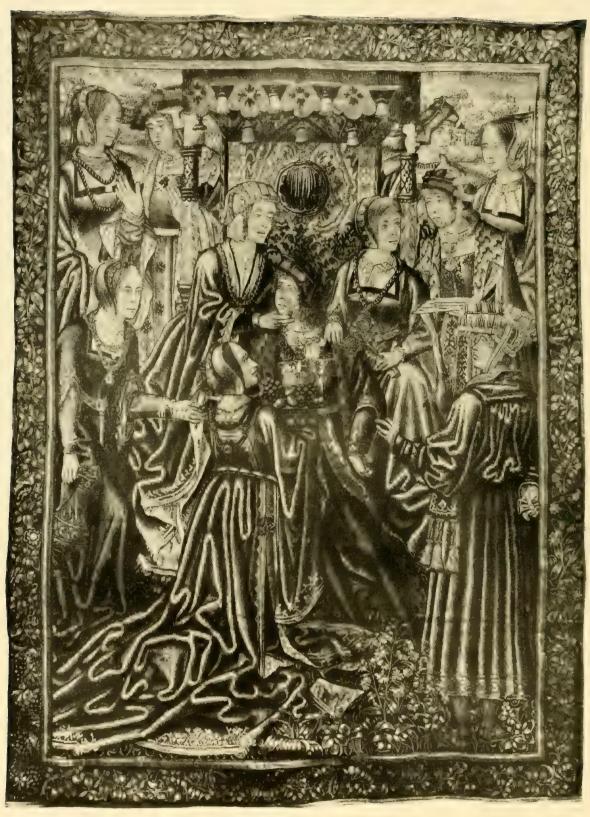


Plate XVIII "THE COURT OF LOVE" Late Gothic tapestry in the Metropolitan Museum

caded velvet; he is dressed like a man of action, short coat and trousers, with a sword stuck by his side. Bands of letters adorn his clothing, letters the meaning of which is not clear. Jeremiah is represented as an aged man, clean shaven and wearing a slouch hat. St. Peter, who faces him, wears spectacles and is reading a scroll which bears his name. David holds a sceptre and wears a crown. Isaiah kneels opposite James, who is apparently conversing with Hosea.

MADRID, NEW YORK AND PARIS

One of the most exquisitely beautiful and technically perfect tapestries in the world is The Triumph of the Virgin, illustrated on Plate XV. It is a Gothic tapestry in the Royal Spanish collection, and closely resembles in style and execution the famous Mazarin tapestry. The centre of the tapestry is occupied by the Virgin, while behind her is figured God with sceptre in His right hand. On one side, above her, stands Christ; on the other side the Holy Ghost. Very interesting it is to note this method of representing the Holy Ghost. Frequently in Late Gothic tapestries the Holy Ghost is represented in the form of a dove; not infrequently the three, Father, Son and Holy Ghost, are represented as three Kings, all with the same features, and all with sceptre and globe-and-cross of Empire, except that Christ, when seated, always has the globe-and-cross of Empire at His feet, and His sceptre turned down to show that He abnegates Temporal Power.

The tapestry illustrated on Plate XVII and formerly in the Morgan collection is one of those comparatively small but extremely interesting pieces woven in the fifteenth century to hang above choir stalls. The subject is "The Massacre of the Innocents." On the left Herod is seen in the act of giving orders to the executioners, whilst in the middle scene the executioners are carrying the orders out, and on the right Joseph and Mary are seen in the famous Flight to Egypt.

The small portion of a tapestry reproduced on Plate I shows on a large scale the hatchings which are such an important and vital part of almost all tapestries, but particularly of Late Gothic tapestries. Note particularly the vertical colour lines in the draperies back of Bathsheba, also the vertical hatchings on the skirt of David's robe. The series of ten, of which this tapestry is one, is now at the Musée Cluny, Paris, and was woven in Flanders at the beginning of the sixteenth century.

CHAPTER XIV

RENAISSANCE TAPESTRIES

Renaissance tapestries differ radically from Gothic tapestries. The style of design has entirely changed and has become Italian instead of French-Flemish. The sky line has dropped and open air and perspective effects have been introduced boldly. Shadows are used with considerable freedom and in consequence the scale of ornament has become larger. Especially is the contrast noticeable between the tiny flowers and leaves of Gothic mille-fleur backgrounds and borders, and the backgrounds and borders of Flemish Renaissance tapestries. As compared with the line designs of the Gothic centuries and the sculptural designs of the Baroque seventeenth century, the designs of the Renaissance might be described as paint designs, in this respect resembling the Rococo and Classic Revival designs of the eighteenth century.

RENAISSANCE BORDERS

Especially do Renaissance tapestries differ from Gothic tapestries as regards their borders. The borders of Gothic tapestries are either non-existent or narrow as in Late Gothic tapestries, which have flower and fruit borders from five to six inches wide. The borders of Renaissance tapestries start narrow but within a few years jump to ten or even eighteen or twenty inches wide. Many of the Early Renaissance borders were from ten to twelve inches wide. The borders from seventeen to twenty-two inches wide were inspired by the vertical woven pilasters originated in Raphael's studio for the Acts of the Apostles tapestries designed by Raphael for Pope Leo X to hang in the Sistine Chapel. These woven pilasters Raphael's favourite pupil, Giulio Romano, developed into the full borders for both sides and bottom, that we see in the set of Acts of the Apostles tapestries woven for the Emperor Charles V and now in the Royal Spanish col-

Plate I "THE HEAD OF CYRUS," FLEMISH RENAISSANCE TAPESTRY



Plate II "THE BLINDING OF ELYMAS" One of the famous "Acts of the Aposthes" series, designed by Raphael, and now in the Royal Spanish collection

lection (Plate II; also Plate I of Chapter XVI). These borders were not flower-and-fruit borders, but compartment borders, each compartment containing some allegorical figure, like Charity or Prudence, with the Latin name often spelled out beneath in Roman letters.

Of these compartment borders there are two types, the Italian Renaissance type as it came direct from the pencil of Giulio Romano, and the Flemish Renaissance type as it was modified in Flanders by Flemish designers and weavers. Distinctive of Flemish designers and weavers is their love for floriation and verdure. Of this the famous Gothic mille-fleurs are splendid evidence. Consequently they were not satisfied with the plain and bare backgrounds of the Italian Renaissance compartments, but proceeded to fill them up with Flemish Renaissance flowers and leaves. The border of Plate II illustrates the Italian Renaissance type of compartment border; the border of Plate XV illustrates the Flemish Renaissance type of compartment border.

NUDES AND WHISKERS

Renaissance designers not only introduced more sky, more landscape and more building into tapestries, they also multiplied the use of nudes. The Gothic centuries were modest centuries. In the famous Seven Sacraments tapestry presented to the Metropolitan Museum by Mr. Morgan, even the traditionally nude figures of Adam and Eve are clothed—not heavily clothed, it is true, but still clothed not entirely nude. The Renaissance, with its study of ancient statuary and imitation of ancient painting, changed all this. Even if Giulio Romano did not illustrate Arctin indecently, as has been said by some, yet in all his designs there is a passion for the nude, a fondness for the unclothed, which definitely distinguishes the spirit and motifs of the sixteenth century from those of the fifteenth. The personages of Late Gothic tapestries, such as the Prophecy of Nathan, illustrated on Plate VII of Chapter XIII, were magnificently and splendidly draped in long and all-concealing robes. The costumes of the Renaissance, more or less borrowed from the ancient Romans, reveal much more.

Whiskers also distinguish Renaissance tapestries from Gothic tapestries. The fifteenth century had been a clean-shaven century. Men's faces had seemed completely innocent of hair and their heads



Plate III—"SAINT PAUL BEFORE AGRIPPA AND BERENICE" Early Renaissance tapestry in the Royal Spanish collection



Plate IV "JOSEPH SOLD BY HIS BRETHREN" A Renaissance tapestry, in the Foulke collection

burdened but lightly with hair. Towards the end of the fifteenth century, however, hair began to be worn longer, and after the first few years of the Renaissance, long hair and whiskers became quite the fashion.

RAPHAEL AND HIS PUPILS

The most famous Renaissance designer of tapestries is Raphael, and the most famous set of Renaissance tapestries is his Acts of the Apostles. The example illustrated, however, on Plate II, is not one of the original set which hangs now in the Vatican, but one of the Royal Spanish set. The story pictured is the Blinding of Elymas as told in verses VI to XII of Chapter XIII of Acts. Elymas was a sorcerer who tried to turn away the Roman deputy from the true faith. But Paul said: "Oh, full of all subtle things and all mischief, thou child of the devil, thou enemy of all righteousness, wilt thou not cease to pervert the right ways of the Lord? And now, behold, the hand of the Lord is upon thee, and thou shalt be blind, not seeing the sun for a season." And immediately there fell upon him a mist in the darkness; and he went about seeking someone to lead him by the hand. Then the deputy, when he saw what was done, believed, being astonished at the doctrine of the Lord.

So that the important part of the story is not so much the Blinding of Elymus as the conversion of the deputy, as told in the Latin inscription in the tapestry which reads, translated: "Lucius Sergius Paulus, Proconsul of Asia, embraces the Christian faith through the preaching of Paul."

OUR LADY OF SABLON

One of the most interesting tapestries in the world is Our Lady of Sablon, now in the Brussels Museum. It formerly belonged to the Spitzer collection, and is one of a set of four, each having three scenes. The story interest of this tapestry is very great. The two personages carrying the litter in the middle panel of the tapestry (Plate VII) are the brothers Charles and Ferdinand, both emperors later, the first as Charles V and the other as Ferdinand I. The old gentleman in the foreground of each of the three panels is the Imperial Postmaster, Francis de Taxis, whose name appears on the façade of the new New York City postoffice on Eighth avenue, placed there by the architects, McKim, Mead & White, because of the great services rendered by him in the development of communication by post.



Plate V "ARTEMISIA BRINGS AID TO CYRUS, WHO HAS BRIDGED AND IS ABOUT TO CROSS THE HELLESPONU" Renaissance tapestry, one of a set in the Royal Spanish collection

The personages who kneel in the right panel of the tapestry are Ferdinand, his four sisters, and his aunt and guardian, Margaret of Austria. The coat-of-arms in the middle of the top border of the tapestry is that of Margaret of Austria.

Our Lady of Sablon is, of course, the Virgin borne upon the litter. In the middle of the fourteenth century, a poor woman had found this image neglected in the Church of Notre Dame at Antwerp. She took it to a painter who enriched it with gold and precious colours. Then she restored it to the church, where it immediately inspired devotion in all who beheld it and attracted many worshippers. Then the Virgin appeared to the old woman and bade her carry the statue to Brussels. When the warden tried to prevent her from taking it, he was struck with paralysis. She went to the harbour and embarked in an empty boat. The boat, as if guided by the Virgin's own hand, stemmed the current and brought the sacred image safely to Brussels. Here the old woman was received by the dignitaries of the city, and the image was carried in triumphant procession to the Church of Our Lady of Sablon.

In designing the story for presentation in tapestry, the artist not only modernised the costumes but also substituted for the ancient actors of the fourteenth century, the contemporary ruler of the Netherlands, Charles, and his brother Ferdinand.

GIULIO ROMANO

The two most prolific tapestry designers of the Renaissance were the Italian Giulio Romano, who was Raphael's favourite pupil, and the Fleming Bernard van Orley, who is said to have also worked in Raphael's studio.

The Scipio designs created by Giulio Romano in illustration of Livy's History of Rome were wonderfully popular, and were not only themselves reproduced with more or less fidelity in tapestry during the sixteenth and seventeenth centuries, but also inspired a host of other Scipio tapestries along similar lines. Parts of the story that had seemed neglected or treated briefly in Giulio Romano's designs, were expanded and developed into complete stories. Giulio Romano's designs pictured scenes from the second Punic War between the Carthaginians and the Romans (B. C. 218 to 202) in which Publius Cornelius Scipio, called Africanus because of his victories in Africa, won the empire of the world for the Romans.

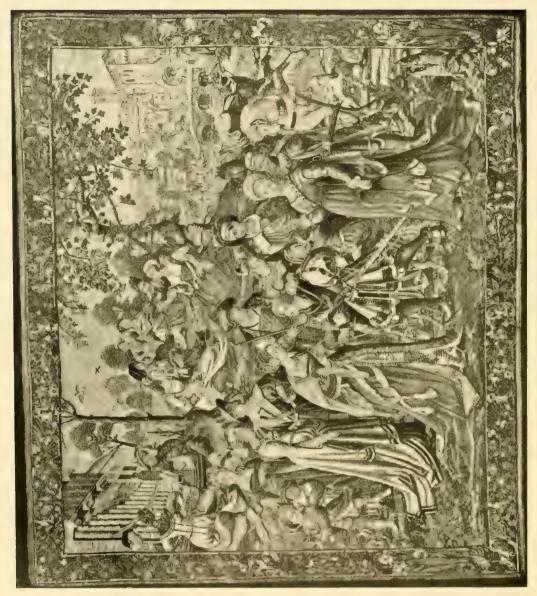


Plate VI "A CONCERT IN THE OPEN" Early Renaissance tapestry designed by van Orley

By some delightful turn of Fortune's wheel, part of the finest set of Scipio tapestries with which I am acquainted is now in New York, recently brought here from Madrid, where others of the set still remain. The set is Early Renaissance in every detail of design and execution and all the tapestries of the set are luxuriantly rich with gold, inserted with marvellous skill in plain and basket and couched weave, the last producing in the robes brocaded effects that are incomparably magnificent.

These tapestries are in every way equal to the greatest tapestries of the period, the Acts of the Apostles sets at the Vatican and in the Royal Spanish collection; the Abraham sets at Hampton Court, in the Imperial Austrian collection, and in the Royal Spanish collection; the Moses set in the Imperial Austrian collection; the Mercury and Herse tapestries in the possession of the Spanish Duchess de Denia, and of Mr. George Blumenthal.

An extraordinary fact about the four tapestries of this Scipio set now in New York, is that they have not been injured by the hand of time; they are as fresh and in as perfect condition as when they first came from the loom. It is said that they have passed most of their existence in huge cedar chests, protected from light and wear as well as from moths. These tapestries are complete evidence that the weavers of the first half of the sixteenth century understood how to make picture tapestries that did not require aging to become beautiful. Never since then have weavers displayed the same skill. Probably the first Scipio tapestries made from the designs of Giulio Romano were the Francis I set, rich with gold, in twenty-two pieces. four French aunes high with combined width of a hundred and twenty French aunes (roughly, 16 by 480 feet), woven in Brussels by Marc Cretif and burned for the gold they contained in 1797. [Note: The length of a French aune is 46\\(^3\)/4 inches, roughly 4 feet or one and one-fifth metres.

The most complete descriptive list that we have of Francis I's Scipio tapestries is from a royal inventory of about 1660, reproduced by Reiset in his "Desseins au Musée Impérial du Louvre, Paris, 1866." The widths of the different tapestries are given in French aunes. The first thirteen of the tapestries pictured the Deeds of Scipio; the last nine the Triumph of Scipio.

By some strange and fortunate chance fifteen of Giulio Romano's original Scipio drawings (petits patrons) have been preserved and



Plate VII "OUR LADY OF SABLON" An early Renaissance tapestry in the Brussels Museum



Plate VIII THE DOLLEUS CRUCIFIXION
An early Renaissance tapestry rich with gold, designed by Bernard van Orley, and now owned by Mr. Widener

can be seen at the Louvre. These drawings average in size 17 inches high by 22 inches wide. Nine of them illustrate nine scenes of the Triumph of Scipio mentioned above; the other six, six of the Deeds of Scipio. They were formerly in the collection of Everhard Jabach, from whom they were purchased for Louis XIV by Lebrun.

Of the full-size cartoons in colour (grands patrons) there is one in the Louvre 11 feet 7 inches high by 21 feet 2 inches wide, reproducing scene number two of the Triumph of Scipio. This is one of four cartoons presented to Louis XVI in 1786 by the English painter, Richard Cosway, who bought them in Venice, where they had been taken in 1630 when the palace of the Duke of Mantua was pillaged by the Imperial troops.

Another famous set of Early Renaissance tapestries, also probably after the design of Giulio Romano, is the Story of Abraham, of which there is a set of ten in the Imperial Austrian collection signed by the famous Brussels maker of tapestries, William van Pannemaker; a set of seven in the Royal Spanish collection, signed by the same maker; and a set of eight at Hampton Court. In 1548 the whole set of ten was still at Hampton Court, when an inventory was taken of the effects of Henry VIII "Tenne peces of newe Arras of Thistorie of Abraham." The Spanish set formerly belonged to Charles V's daughter, Joanna, and numbered only seven in the inventory made at the time of her death in 1570. The Austrian set has in the upper part of the panel, on the right and on the left, the Lorraine coat-of-arms with the Cardinal's hat of Duke Charles of Lorraine-Vaudémont who died in 1587. The borders of these Abraham tapestries are divided into compartments, after the fashion of the compartment borders described above. The story of each tapestry is told in a Latin inscription on a goat's hide in the middle of the top border.

BERNARD VAN ORLEY

The most famous set of tapestries designed by Bernard van Orley is the Hunts of Maximilian in twelve pieces, one for each month of the year (Plate IX). The first set was woven in Brussels, and now hangs in the Louvre. It was long in the possession of the Duke de Guise, and for that reason is often called Les Belles Chasses de Guise. While these tapestries are definitely in the style of the Renaissance, they show few traces of the paint technique that injured so many of the tapestries woven from Italian Renaissance



Plate IX ONE OF THE "HUNTS OF MAXIMILIAN" A series of twelve tapestries designed by Bernard van Orley, now in the Louvre



Plate X "HERCULES KILLS THE DRAGON OF THE HESPERIDES" One of a set of Renaissance tapestries in the Imperial Austrian collection

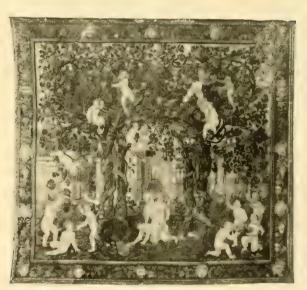


Plate XI—"CHILDREN PLAYING" Renaissance tapestry after Giulio Romano

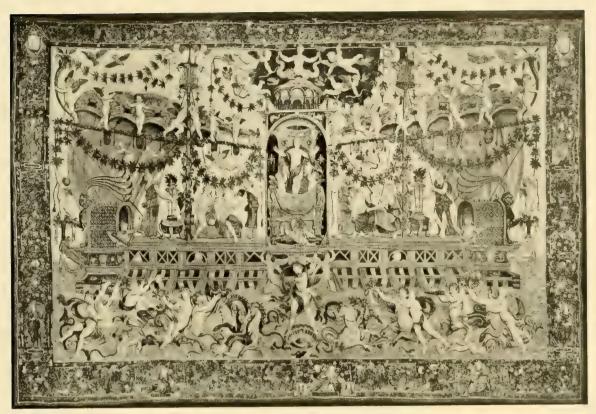


Plate XII—"THE TRIUMPH OF VENUS" Renaissance "grotesque" tapestry in the French National collection



Plate XIII—"MARSYAS FLAYED BY APOLLO" Renaissance tapestry in the Royal Spanish collection



Plate XIV—"THE CREATION OF EVE" Renaissance tapestry in the Tapestry Gallery at Florence



Plate XV—"DAVUD DANCING BEFORE THE ARK" Flemish Renaussance tapestry

designs. The fact is that Bernard van Orley, living in Brussels as he did, thoroughly understood tapestry texture, and all of his tapestries, even those that are most Italian, are full of the rich effects inherited from Gothic tapestries. It is interesting to note that the Hunts took place in the vicinity of Brussels, and that the Maximilian named was the Emperor Maximilian who was the grandfather of Charles V.

TAPESTRY SIGNATURES

The signatures of Renaissance tapestries are exceedingly interesting. Gothic tapestries were seldom signed. In the second quarter of the sixteenth century the habit of signing tapestries became general. Indeed, in the year 1528, the practice was confirmed legally by the Emperor Charles V for Brussels, and in 1544 for the rest of the Netherlands. During the sixteenth century Brussels tapestries were signed with the Brussels mark, two capital B's in yellow on each side of a red shield, in the bottom selvage, and usually on the left side of the tapestry; and with the weaver's or maker's monogram in the right selvage of the tapestry.

Among monograms that have been identified, perhaps the most famous is that of William van Pannemaker, who wove the famous Tunis tapestries for the Emperor Charles V, picturing the Emperor's successful and victorious expedition to Tunis. The designs were by Vermeyen, who accompanied the Emperor for the purpose of sketching the scenes on the spot where the action took place. A full-length portrait of the designer appears in the first tapestry of the set, and the story of each tapestry is told by long Spanish captions in the top borders and by long Latin captions in the bottom borders. The original set is in the Royal Spanish collection, but in the Imperial Austrian collection there is a set woven a hundred and fifty years later by I. De Vos, whose name, together with the Brussels mark, appears in the bottom selvage, in the same form as in the bottom selvage of the Parnassus tapestry of the Stuart collection in the New York Public Library.

CHAPTER XV

GOBELINS, BEAUVAIS, MORTLAKE TAPESTRIES

During the seventeenth century, owing to the policy of "protecting and encouraging home industries" of Henri IV, Louis XIII and Louis XIV, and of the wise and efficient prime ministers, Richelieu, Mazarin and Colbert, manufacturers flourished in France and Paris became the decorative capital of the world. During the Gothic and Renaissance centuries, first Arras, then Brussels, had been the centre of tapestry weaving. In the Baroque seventeenth century the supremacy in tapestry was transferred from Brussels to Paris; and ever since, the name most famous in connexion with tapestry has been that of the Gobelins.

The Gobelins is a most interesting institution, open in times of peace to visitors on Wednesday and Saturday afternoons from 1 to 3. The trip is an easy one by automobile, or street car, or motor bus, from the Halles across to the left bank of the Seine, and out the long Avenue des Gobelins. The entrance to the courtyard, with Les Gobelins on the gate beneath RF, is simple but impressive.

Oddly enough the family of Gobelins, whose name has become inextricably associated with tapestries, were not tapestry weavers and never had anything to do with tapestry weaving. As is shown by the inscription at the left of the entrance gate: "Jean and Philibert Gobelin, merchant dyers of scarlet, who have left their name to this quarter of Paris and to the tapestry factory, had their works here at the end of the fifteenth century."

The Gobelin family prospered, and from dyers finally became financiers. By the beginning of the seventeenth century dyeing was beneath their dignity and they were glad to dispose of the property that had made them rich, and was to make them famous.

As is shown by the inscription at the right of the entrance gate: "April, 1601, Marc de Comans and François de la Planche, Flemish



Plate I BEAUVAIS TAPESTRY DESIGNED BY BÉRAIN

Plate II.—"DIANA IMPLORING JUPITER" Early Gobelin tapestry designed by Dubreuil

tapestry weavers, instal their workrooms on the banks of the Bièvre." Theirs is the tapestry plant often described as the "Early Gobelins" by contrast with the Gobelins after it became the property of the Crown sixty years later. The Bièvre is the little stream in the rear, now covered and no longer used, that was greatly cherished by dyers of red in ancient days, because of the special virtues that made its waters suitable for their purpose. Frans Van Den Planken (the Flemish form of the name) came from Audenarde, Marc de Comans from Brussels. Although the partnership was formed and became active in January, 1601, for the manufacture of tapestries and for other important commercial operations, the royal edict of Henri IV officially incorporating the business, and granting it large subventions and important privileges, while imposing on it heavy burdens such as the training of many apprentices and the operating of tapestry works in the provinces, is dated 1607. This is the edict that was used as a model by the English a few years later in organising the tapestry works at Mortlake.

That the enterprise prospered is proved by a report on it discovered a few years ago in the archives of the Barberini family of Rome, as well as by the tapestries that are still preserved: notably the sets picturing the "Story of Diana" after Toussaint Dubreuil, in the French National Collection (Plate II); in the Royal Spanish collection; and in the Morgan Memorial at Hartford, lent by Mr. Morgan. That the greatest painters were employed is shown by a letter dated February 26, 1626, from Rubens dunning M. Valavès for money due on designs of the "Story of Constantine." In the inventory made at the death of Planche (Planken), these are described as: "Twelve small designs painted in oil on wood, from the hand of Peter Paul Rubens, representing the story of Constantine." The designs were woven again and again, and there are several examples of each in the French National collection. Another set for which the Early Gobelins is famous is the "Story of Artemisia," originated to celebrate the widowhood of Catherine de Médicis, wife of Henri II, but adapted and given new borders to comfort Marie de Médicis and Anne d'Autriche. wives of Henri IV and Louis XIII, in their similar bereavements.

After the death of François de la Planche, his son Raphael drew out his interest, and set up a rival establishment in the Faubourg Saint Germain. Twenty years later another low-warp plant with Flemish weavers was established by Foucquet at Maincy, near his

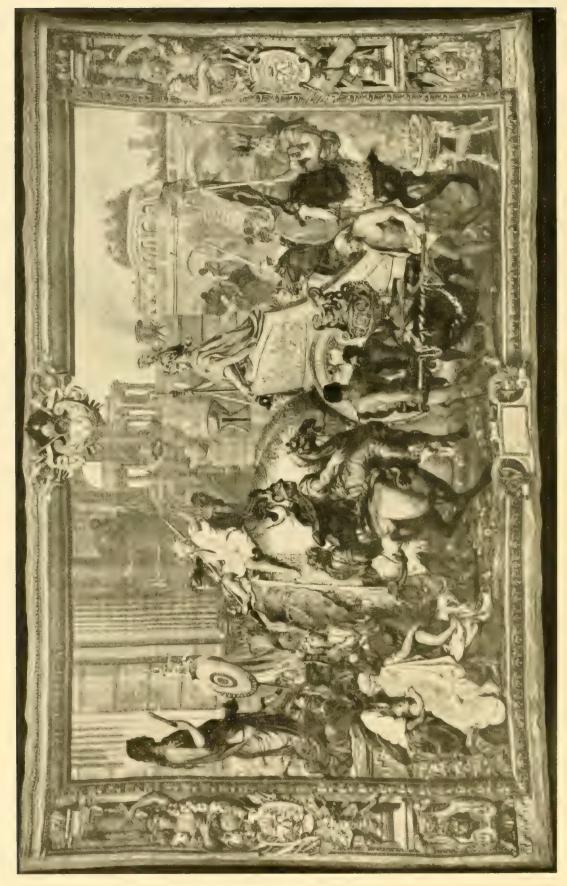


Plate III "ALEXANDER ENTERING BABYLON" Louis XIV Gobelin tapestry designed by Lebrun

wonderful estate Vaux-le-Vicomte. These three low-warp plants, together with the ancient but smaller high-warp ones of the Trinité and the Louvre, formed the nucleus of the "Royal Furniture Factory of the Crown" formally established by royal decree at the Gobelins in 1667, with Charles Lebrun, who had previously been the unfortunate Foucquet's decorator and painter, as art director.

LOUIS XIV AND LEBRUN

The organisation of the Gobelins, from 1662 to 1667, owed everything to the energetic care and forethought of Louis XIV's great minister, Colbert. He was the moving spirit behind it all, and he saw that the sinews of art in the form of money were not lacking. The workmen received quarters on the premises, together with the small gardens that are still one of the attractions tending to reconcile them to small wages. The different shop managers worked each on his own account. The Crown supplied them with wools, silks, gold and silver tinsel, the cost of which was retained out of the finished tapestries paid for at a rate fixed in advance. The shop managers were not, however, restricted to work for the Crown. They were allowed to accept commissions from dealers and from individuals. They paid their men by the piece at a rate varying for the different portions of a tapestry, according to the difficulty in weaving and the skill required.

The greatest series of tapestries woven at the Gobelins after it became a state institution, and the one that first suggests itself to all who know about Gobelin tapestries, is the "Story of the King," after Lebrun. Here we find pictured in fourteen huge webs the solemn and official glorification of the more important events of the life of Louis XIV, amongst them his: "Coronation in 1654," "Marriage in 1660," "Entrance into Dunkirk after its recovery from the English, in 1662," "Renewal of the Franco-Swiss Alliance, at Notre Dame in 1663," "Siege of Tournai in 1667," "Capture of Lille in 1667," "Visit to the Gobelins in 1667," "Capture of Dole in 1668." The first set, rich with gold and woven on high-warp looms, was 16 feet 6 inches high with an average width of 24 feet 6 inches. The other three sets, rich with gold but woven on low-warp looms, were only three-fourths as high and narrower in proportion.

Other sets designed by Lebrun are:

(1) "The Royal Residences," in twelve pieces, one for each month, each showing one of the royal palaces, the Louvre, the

Plate IV "WINTER" Louis XIV Gobelin tapestry designed by Mignard, of which there is a fine example at Sherry's

Tuileries, Versailles, Chambord, etc., backgrounding hunting scenes, promenades, cavalcades and balls, appropriate to the season, framed on each side with columns and pilasters, and above with massive entablature, while in the foreground valets in the royal livery spread rich stuffs over a balustrade. During the King's life, this set was rewoven at the Gobelins more often than any other.

- (2) The "Elements" and the "Seasons," each in four pieces, with Latin captions and allegorical emblems in the Renaissance fashion. They were reproduced six times at the Gobelins in the seventeenth century, and often copied at Brussels, Aubusson and Felletin, and in England.
- (3) The "Child Gardeners," in six pieces, in an entirely different spirit, light and gay and humourous, woven five times in twenty years on low-warp looms.
- (4) The "Story of Alexander" (Plate III), an especial favourite at Court because of the allusion in it to events in the life of Louis XIV. It was reproduced eight times at the Gobelins, and often at Brussels, Audenarde, and Aubusson, and in England. Lebrun painted the five huge pictures entirely with his own hands, one of them, the "Family of Darius at Alexander's Feet," at Fontainebleau, in the presence of the King himself. The other scenes were the "Passage of the Granicus," the "Battle of Arbela," the "Battle with Porus," "Alexander Entering Babylon." The three battle scenes were so large that each was woven in three pieces. Four tapestries of the set, lent by the French government, were recently exhibited at the Brooklyn Museum, together with several modern Gobelins, and two ancient Louis XIV savonneries.

As the King grew older and France less successful in war and in commerce, the subjects of tapestries changed their character. There was a distinct movement away from contemporary and back to Biblical and Greek and Roman history, and to Renaissance designs. Instead of the "Story of the King" we have the "Story of Moses," in ten pieces, eight after Poussin and two after Lebrun. Already Raphael's famous "Acts of the Apostles" tapestries designed by Pope Leo X had been copied at the Gobelins. Now, the weavers reproduced also Raphael's "Chambers of the Vatican" and "Sujets de la Fable"; Giulio Romano's "Story of Scipio" and "Fruits of War"; Bernard van Orley's "Hunts of Maximilian"; the "Arabesque Months"; the "Months of Lucas."

Plate V—"DIDO AND ÆNEAS". Louis XIV tapestry designed by Antoine Coypel

When Lebrun died in 1690, he was succeeded by Pierre Mignard, who had already undermined his power. The only important tapestries by Mignard are the set of six copied from his paintings in the Gallery of Saint Cloud: Spring, Summer, Autumn, Winter (Plate IV), Parnassus, Latona.

The "Indies" is a set of eight vigorous animal tapestries copied from paintings "painted on the spot" and presented to the King by the Prince of Nassau. In honour of the visits of the Czar Peter the Great to the Gobelins in 1717, the first high-warp set of the "Indies" was presented to him. A set based upon old Brussels tapestries called on the books of the Gobelins "Rabesques de Raphael," is the "Triumphs of the Gods," after Noel Coypel.

Among the most successful of the new sets, after the period of inactivity at the Gobelins from 1694 to 1697, due to lack of money in the royal purse, were the "Four Seasons" and the "Four Elements" (the "Portières of the Gods") after Claude Audran. Other sets begun in the declining years of Louis XIV were the "Old Testament," in eight pieces, after Antoine and Charles Coypel; the "New Testament," in eight pieces, after Jean Jouvenet and Jean Restout; the "Metamorphoses of Ovid," in fifteen pieces, after different painters.

LOUIS XV AND COYPEL

Upon the death of Louis XIV in 1715, he was succeeded by his five-year-old great-grandson Louis XV, during whose minority, Philip, Duke of Orleans, was Regent. Compared with the age of Louis XIV, the periods of the Regency and of Louis XV were frivolous. In his youth Louis XIV had worshipped war and glory; in his old age, religion and the Church. During the reign of Louis XV the hearts and minds of men were less exalted and set more on the joys of the present. Instead of the "Story of the King" after Lebrun, we have the "Hunts of Louis XV" after Oudry. Domestic and pastoral life was idealised, as in the story of "Daphnis and Chloe," designed by the Regent himself, assisted, some say, by Charles Coypel. Another Regency set was the "Iliad" in five pieces, by Antoine and Charles Coypel.

Of all eighteenth century Gobelin tapestries, the Don Quixote series in twenty-eight scenes, by Charles Coypel, was most admired and most frequently reproduced. The first scene was designed by



Plate VI "THE TOILET OF ESTHER" Louis XV Gobelin tapestry designed by De Troy

Coypel in 1714 when he was barely twenty; the last, in 1751, a few years before his death. The frames of these Don Quixote tapestries, of which there are five perfect examples in the Metropolitan Museum, lent by Mrs. Dixon, are quite as important as the pictures and take up much more room. Indeed, the pictures are but miniature medallions set in a decorative mat that is framed inside and outside with woven gilt mouldings in imitation of wood. One of the five tapestries was presented by Napoleon in 1810 to the Prince of Hesse-Darmstadt; the other four, by Louis XVI, in 1774, to the Archbishop of Rheims, who had baptised him, given him first communion, and married him, and who crowned him at Rheims the following year. All five were acquired by the late J. Pierpont Morgan from the estate of Don Francisco d'Assisi, grandfather of the present King of Spain.

Other tapestries originated at the Gobelins in the reign of Louis XV, were Charles Coypel's "Opera Fragments," in four pieces; the "Story of Esther," in seven pieces, after Jean François de Troy (Plate VI); "Daphnis and Chloe," in seven pieces, after Etienne Jeaurat (of which three pieces were recently sold at auction in New York); the "Arts," in four pieces, after Jean Restout; "Stage Scenes," in five pieces, after Charles Coypel; the "Loves of the Gods," twenty-two pieces, of which "Venus and Vulcan," "Cherubs," and the "Genius of the Arts" were by Boucher.

Subjects designed by Boucher for the Gobelins after he became chief inspector in 1755, were "Vertumnus and Pomona," "Neptune and Amymone," "Venus at the Forge of Vulcan," "Venus Leaving the Water," "Fishing," the "Fortune Teller," "Jupiter and Callisto," "Psyche Looking at Cupid Asleep," and four that tell the "Story of Amintas and Sylvia." Like the Don Quixote series of Charles Coypel, most of these were reproduced small, with wide damassé mats between woven mouldings. The frames were by Jacques and Tessier.

During the last half of the eighteenth century, the Gobelin shop managers executed many portraits in tapestry; notably Audran, the one of Louis XV, after Vanloo. Also, as a result of the influence of Madame de Pompadour, many furniture tapestries—seats and backs of chairs and sofas, and panels for screens—were made after the models of Tessier, Jacques, and Boucher.

The only new sets originated at the Gobelins, during the reign of Louis XVI (1774-1792), the "History of Henri IV," in six pieces, after Vincent; the "Seasons," in four pieces, after Callet; the "History



Plate VII—"THE FARM" Beauvais tapestry designed by Huet



Plate VIII—THE "PARNASSUS" TAPESTRY IN THE NEW YORK PUBLIC LIBRARY A Louis XIV Brussels woven by Judocus de Vos who signed it

of France," in nine pieces, after different painters, were unimportant from the tapestry point of view.

Since then, few great tapestries have been originated at the Gobelins, although it still continues to be the artistic centre of tapestry weaving. Modern Gobelin tapestries follow too closely the technique of the pianted cartoons, and even the spirited Joan of Arc series suffers greatly in its execution by comparison with Gothic and Renaissance texture.

THE BEAUVAIS TAPESTRY WORKS

On August 5, 1664, three years before the incorporation of the "Furniture Factory of the Crown" at the Gobelins, the King signed an edict subsidising and conferring special privileges on "The royal manufactures of high- and low-warp tapestries established at Beauvais and other places in Picardy." This was the origin of the Beauvais Tapestry Works, founded by a native of Beauvais, Louis Hinart, who was an experienced maker and merchant of tapestries, having a shop in Paris where he disposed of the goods made at his factory in Flanders. Although the King was exceedingly generous with his subventions and also purchased many tapestries from Hinart, the latter was unable to make the enterprise prosper at Beauvais, and in 1684 was obliged to retire.

Cronstrom, the Paris agent of the Swedish Crown, says that the reason Hinart's creditors forced him into bankruptcy was that Madame de Montespan had entrusted the factory established at Paris by Philip Béhagle of Tournai, with the execution of the tapestries after Bérain she was having made for her son, the Count of Toulouse, and that Hinart's best workmen left him to go with Béhagle. However that may be, when Hinart retired, Béhagle succeeded him as proprietor of the Beauvais Tapestry Works, and made good from the first. Among important sets woven by him are the "Conquests of Louis the Great," rich with gold, two pieces of which are in the possession of Signor Candido Cassini of Florence; the "Acts of the Apostles," after Raphael, signed by Béhagle and still preserved at the Beauvais Cathedral; the "Adventures of Telemachus," in six pieces, after Arnault; the "Story of Achilles," the "Grotesques," on yellow ground (Plate I), and the "Marine Divinities," all after Bérain; the "Battles of the Swedish King, Charles XI," after Bérain, a set rich with gold still preserved in the Royal Swedish collection.



Plate IX "LE DÉPIT AMOUREUX" Beauvais tapestry designed by Oudry, formerly in the Morgan collection

Although Béhagle left the business in a flourishing condition when he died in 1706, his widow and sons were not equal to the task of keeping it up, and in 1711 were succeeded by the brothers Filleul, who, in 1722, were succeeded by Mérou. The most important set originated under the brothers Filleul was the "Chinese Set" in six pieces, after Vernansaal, Fontenay, and Dumons, one of which was shown at the Buffalo Tapestry Exhibition. Neither the brothers Filleul nor Mérou were able to make a success of the business, and in 1734 the latter retired in favor of Nicholas Besnier.

OUDRY AND BOUCHER

Besnier was a practical man of affairs who splendidly seconded the artistic efforts of Jean Baptiste Oudry, whose appointment as art director of the Beauvais Tapestry Works in 1726 had been the most important event of Mérou's administration. Any tapestry signed Besnier et Oudry in the bottom selvage is worthy of close attention. Under Mérou, Oudry had delivered the cartoons of the "Chassés Nouvelles" in six pieces (the Wolf, the Stag, the Fox, the Wild Boar, the Hound, the Deer); the "Amusements Champêtres," in eight pieces; the "Comedies of Molière" (Plate IX), in four pieces, three of them formerly on exhibition at the Metropolitan Museum of Art, lent by Mr. Morgan, and before that in the Kann collection. The most important sets designed by Oudry for Beauvais after 1734 were the "Metamorphoses" (Plate VIII in Chapter XII), in eight pieces; the "Fine Verdures," in ten pieces; the "Fables of Lafontaine," in four pieces.

Undoubtedly, tapestry owes more to Oudry than to any other man of the eighteenth century. Although his point of view on tapestry texture, and on the imitation of painting by tapestry, was absolutely and hopelessly wrong, his brilliant work at Beauvais revived the industry there and brought him the appointment of art director at the Gobelins also.

Even more important than Oudry's own designs for Beauvais, were those he secured from other painters, notably François Boucher who was responsible for no less than six sets in forty-five pieces, reproduced seven or eight times; in 1743, the "Chinese Set," for which Dumons painted the cartoons after Boucher's sketches; in 1749, the "Loves of the Gods," in nine pieces; in 1752, "Opera Fragments," in five pieces; in 1755, the "Noble Pastorale" (Plate X), in six pieces,



Plate X—"FISHING"
Beauvais tapestry designed by Boucher. One of the famous "Noble Pastorale" set

the set of which formerly in the Kann collection, now hangs in a private residence in Los Angeles. There is a perfect example, the "Bird Catchers," in the Whitney Collection in New York City.

Boucher's work for Beauvais aroused the jealousy of the weavers at the Gobelins, and in a memorial to the administration dated March 10, 1754, the three shop managers, Audran, Cozette, and Neilson, wrote that "to prevent the decadence of the Gobelin factory, it would be necessary to attach to it Sr. Boucher, and that for nearly twenty years the Beauvais factory has been kept up by the attractive paintings made for it by Sr. Boucher." It is interesting to note that the appeal was listened to, and that Boucher was detached from Beauvais, and attached to the Gobelins, but never made any tapestry designs of great importance thereafter. Fine Beauvais-Boucher tapestries in good condition are worth today from \$100,000 to \$250,000 each.

Besnier's death in 1753 preceded that of Oudry by two years. Besnier was followed as proprietor of the Beauvais Tapestry Works by André Charlemagne Charron, who was able to continue his successes. Among sets originated under Charron were: "Scenes from the Iliad," in seven pieces, after Deshays; the "Russian Games," in six pieces, after Leprince; the "Bohemians," in four pieces, after Casanova.

In 1780 Charron was followed by De Menou, a tapestry manufacturer from Aubusson, who was able to increase the number of workmen from 50 to 120. Amongst sets originated under him were: "Pastorale with blue draperies and arabesques" (Plate VII), in ten pieces, after J. B. Huet; "Military Scenes," in six pieces, after Casanova; "Sciences and Arts," after Lagrenée. The D. M. Beauvais, on the small tapestry "Commerce," in the Decorative Arts Wing of the Metropolitan Museum, is the signature of De Menou.

During the French Revolution, the Beauvais works was taken over by the French Government, for which it now produces tapestry furniture coverings on low-warp looms, whilst the Gobelins now confines itself towall tapestries on high-warp looms. The City of Beauvais is 55 miles north of Paris, and in times of peace visitors are welcome at the works every week day from 12 to 4. The Museum is interesting.

THE MORTLAKE TAPESTRY WORKS

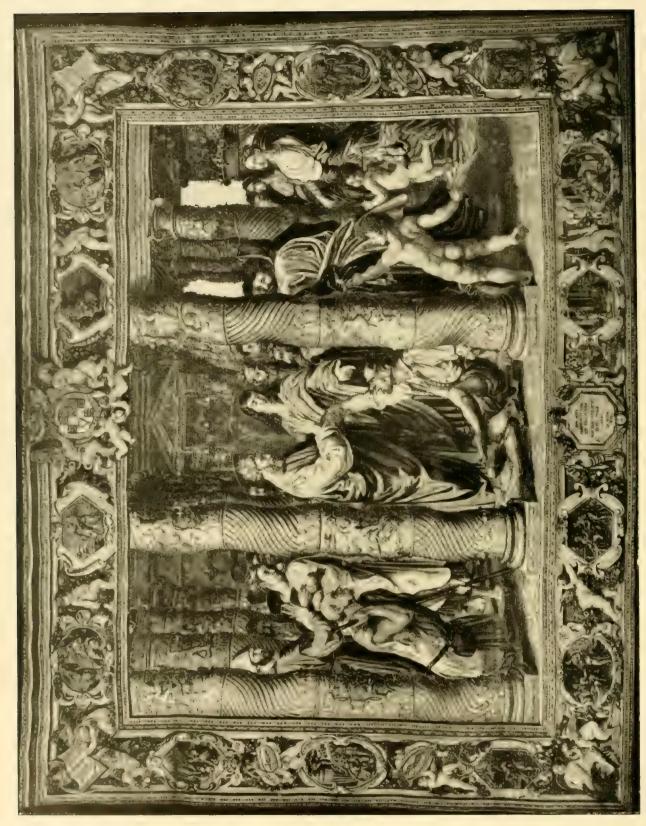
The success of France in attracting low-warp weavers from Flanders to the Gobelins, stirred England to imitation. A copy of

Plate XI FOLDING SCREEN PANELLED WITH BEAUVAIS-BOUCHER TAPESTRIES

the royal edict of Henri IV was secured, and in August, 1619, Sir Francis Crane, the proprietor of the new industry, was granted the fees for the making of three baronets. The importation of Flemish weavers was secretly arranged for, and in 1620 fifty had already arrived. The manager of the works was Philip de Maecht, who had previously been manager of a shop at the Gobelins for Comans and Planche. His monogram appears in the selvage of Early Gobelin as well as of Mortlake tapestries. The art director was Francis Cleyn, who had been a student in Italy in the service of Christian IV of Denmark, and whose work was so much appreciated that after the accession of Charles I in 1625 to the throne of England, he was granted a life pension of 100 pounds a year.

The first important set of tapestries woven at Mortlake, begun on September 16, 1620, and finished on June 5, 1622, was the "Story of Vulcan and Venus," from sixteenth century cartoons, in nine pieces. It was made plain without gold, "except in the piece of Apollo and for the letters," and cost Charles 2,000 pounds. Later, but before Charles became king, three sets of the same tapestry were woven for him, rich with gold, at 3,000 pounds apiece. The "Vulcan's Complaint to Jupiter," lent to the Metropolitan Museum by Mrs. Von Zedlitz, is a piece from one of the gold sets, and bears the monogram of Charles in cartouches in the side borders, the three feathers of the Prince of Wales in the top border; and in the bottom border four sceptres crossed with a ribbon bearing the Latin inscription Sceptra favent artes, the favent being an error for fovent, and the meaning: "Kings foster the arts." This tapestry also carries in the bottom selvage, now misapplied on the right, the Mortlake shield and the monogram of Philip de Maecht. The three "Vulcan and Venus" tapestries, formerly lent to the Metropolitan Museum by Philip Hiss, belong to a later set, without gold and of smaller size, but having a most romantic history. (See my 1912 book on Tapestries.)

Another set of Renaissance cartoons copied at Mortlake was "certayne drawings of Raphaell of Urbin, which were desseignes for tapestries made for Pope Leo the X," for which Prince Charles instructed Sir Francis to send to Genoa. These are the seven (out of the original set of ten) famous Raphael cartoons now on exhibition at the Victoria and Albert Museum. A set of the tapestries woven from them, rich with gold, is preserved in the French National collection. It is a splendid monument to the skill of Mortlake weavers.



The cartouche in the bottom border bears the inscription (Plate XII) Car. rc. reg. Mort., which, spelled out, is Carolo rege regnante Mortlake, and means "At Mortlake in the reign of King Charles."

Other famous sets woven at Mortlake were: The "Naked Boyes," after Giulio Romano; "Hero and Leander," after Francis Cleyn; the "Horses," after Francis Cleyn; the "Twelve Months," after Lucas van Leyden. The Royal Swedish collection contains the only set that has been preserved of "Hero and Leander." It is rich with gold. The "Triumph of Julius Cæsar," after the nine paintings by Mantegna, still preserved at Hampton Court, appears to have been put on the looms in the reign of Charles II, from cartoons ordered by Cromwell.

The death of Sir Francis Crane in 1636, and the troubles of King Charles, ended the prosperity of the Mortlake Tapestry Works, which dragged out a precarious existence during the rest of the century, and was finally dissolved in 1703. The most successful manager during the last half of the seventeenth century was Francus Poyntz, whose signature appears in the battle of "Solebay," in three pieces, in the Prince of Wales bedroom at Hampton Court.

Credit for illustrations: Plate I, P. W. French & Co.; Plates II, III, IV, V, VI, VII, XII, the French National Collection; Plate VIII, the New York Public Library; Plates IX, X, the Kann Collection.

CHAPTER XVI

TAPESTRY FURNITURE COVERINGS

Of all furniture coverings, tapestry is the most durable. Even the ridiculously inexpensive all-cotton jacquard imitations, woven like the one illustrated in colour in Chapter XII, or the verdures without personages, of the same material and weave, long outlast cheap damasks and brocades and twills and leathers and embroideries, whilst of the real tapestries, made by blocking in the colours with a bobbin, without a shuttle, even those of coarsest texture like that illustrated in Plate V, have such a complete interlocking of coarse hidden warp with fine weft, that they resist rubbing and bruising almost indefinitely, and do not tear or ravel even when cut. Age and ordinary wear merely increase their beauty and value.

Unfortunately for the jacquard imitations, they are less beautiful even at the start. The texture of the finer ones is not ribbed, but is a monotonous surface of isolated points, which, as it grows old, decreases, instead of increasing, in beauty. The jacquard imitations look best when mounted on highly varnished or polished wooden frames; they do not look well against weathered oak, or natural oak, or any background that has character in its texture. Their chief mission, it seems to me, is by contrast to emphasise the virtues of real tapestry, and make the name familiar.

Real tapestry is not cheap. The cheapest that I know of in the American market retailed at six dollars a square foot before the war. It was designed by an American maker to meet the competition of the cheaper grades imported from Aubusson, and as the situation necessitates, has been simplified to the utmost, with only ten ribs to the inch, and verdure pattern composed for ease of weaving. A delightful texture is attained, and as the tapestry costs less even than the imported double warp shuttle tapestries, one of which is illustrated on Plate V of Chapter XII, it should supplant them for use on furniture, because



Plate I TAPESTRY CHAIR BACK, RICH WITH GOLD Made under my own direction to illustrate the practicability of weaving today with Renaissance technique



Plate II SOFA COVERED WITH ANCIENT FLEMISH VERDURE TAPESTRY



Plate III - MILLE-FLEUR TAPESTRY COVERINGS Made in America

it will wear better on account of its more completely interlocked weave. The range of possible patterns is about the same.

THE GOBELINS AND BEAUVAIS

The great development of tapestry furniture coverings took place in the eighteenth century at Beauvais, the Gobelins and Aubusson. This was coincident with the development of furniture itself, particularly of chairs, and with the multiplication of smaller pieces of every conceivable shape for every conceivable use. During the Middle Ages, as in the Orient today, residences were very scantily furnished. The chest was the pièce de résistance, with bed and dresser and chairs for the master and the mistress, a trestle table and a cupboard for the main living room, and benches and stools for the lesser personages. During the sixteenth century, particularly in Italy, the number of chairs increased, whilst in both Italy and France two-story cabinets began to take the place of chests. By the seventeenth century, caselike shapes for chairs had been replaced by skeletonised frames, and attached upholstery had become common.

In the last half of the seventeenth century verdure tapestries of the Louis XIV type, like the one illustrated in Plate II, began to be used by upholsterers, although still surpassed in popularity for chair and cushion coverings by grotesque (incorrectly called arabesque) designs more or less modified from their Italian Renaissance (Plate I) and ancient Roman originals. Of these Louis XIV grotesques, the best ancient examples in America are those after Bérain on the sofa and chairs in the Altman collection at the Metropolitan Museum. These covers were woven at Beauvais, and the repeated and reversed monogram P.C. woven into the backs is probably that of the "Grand Condé" who built the Château de Chantilly, and won the glorious victories of Rocroi, Fribourg, Nordlingen and Lens. In the seats appears the crowned double L, the monogram of the King. Apparently these coverings were woven by order of Louis XIV as a present for Condé. Of especial interest to tapestry lovers is the sofa design that shows apes playing with tapestry yarns and bobbins.

Tapestries are especially helpful in teaching the details of the historical styles. The chair back and seat on Plate IX, from part of the great Hoentschel collection presented by Mr. Morgan to the Metropolitan Museum, are one of the most vivid definitions of Rococo I have ever seen. They might have been designed, and perhaps were,

DECORATIVE TEXTILES

by Juste Aurèle Meissonier himself. The asymmetrical twists, and naturalistic forms and motifs, are splendidly emphasised by the classic architecture and vases. This is Rococo at its extreme and also at its best. It is Rococo like this that appears in a few of the earlier plates of the great Italian engraver, Giovanni Battista Piranesi, and the feeling of which, retained in his imagination and in his fingers, warmed in later years the details of his wonderful illustrations of ancient and modern Roman classic architecture.

During the past forty years an incredibly large number of ancient tapestries have been cut up for use on furniture, as well as for cantonnières to frame doors and windows. How Renaissance panels and borders of the grotesque type are employed as screen panels is shown by Plate XII. They are equally pleasing as seats and backs for sofas and chairs, particularly those in the style of the Italian Renaissance, and as covers for tables and benches and stools and sofa pillows. But they are not inexpensive. Fine Renaissance tapestry borders from 16 to 20 inches wide sell quickly for one hundred dollars a running foot, and are steadily appreciating in value. Even at that price it no longer pays to mutilate Renaissance tapestries by detaching the border from the picture panel inside, as was the common practice for many years. The borderless panels that remained were then panelled into the walls of modern residences, with wooden mouldings around. Now the tapestries are more valuable in their complete form, because we are once again beginning to build residences that contain at least one dignified apartment large enough to provide a background for several tapestries of full Renaissance size.

AUBUSSON

Since the revival of interest in—and knowledge of—tapestries in the last quarter of the nineteenth century, Aubusson has been the centre of production of tapestry furniture coverings for the whole world—Russia, Germany and the Argentine, as well as England and America. And whilst some of the shops have exploited goods inferior in structure and materials and dyes, as well as in design, it gives me great pleasure to testify to the general excellence of Aubusson reproductions of French eighteenth century furniture coverings, particularly of those after Oudry and Boucher. Plate VII illustrates the type I mean, inspired by or copied from the tapestry seats and backs illustrating Lafontaine's fables, originated by Oudry for



Plate IV—INEXPENSIVE TAPESTRY CHAIR SEAT Made in America



Plate V—TAPESTRY CHAIR SEAT, OLD ENGLISH NEEDLEWORK STYLE Made in America



Plate VI TAPESTRY COVERINGS MADE IN ENGLAND IN THE LAST HALF OF THE SEVENTEENTH CENTURY



Plate VII AUBUSSON TAPESTRY COVERINGS FOR SEAT, BACK AND ARMS OF SOFA

Beauvais. No wonder they have never lost their vogue. They are so charming in treatment, and so just in scale, that they turn chairs and sofas into framed pictures of exquisite texture, without detracting at all from their use value. These modern Aubusson tapestry coverings in the style of the French eighteenth century, are usually sold in the United States on appropriate Louis XV and Louis XVI frames made in America.

The chair illustrated on Plate XI bears the name of Thomas Thierry, the famous French historian, because the original set of tapestry covers was presented to him by the French government in appreciation of his historical researches and publications. The covers were first mounted about 1870 when the frames, in the style of the Régence, were designed and made. The original set, now in the Louvre, consists of a sofa and eight arm-chairs.

Ancient tapestry coverings woven in the eighteenth century at Aubusson, such as those shown on Plates VIII and X, have the texture characteristic of Aubusson at that period—loose weave with luminous background; and they are splendidly preserved. The Louis XVI coverings on Plate X are part of the "Greek drapery set" consisting of five wall tapestries with tapestry rug and furniture coverings to match. One of the wall tapestries is illustrated on Plate VII of Chapter XII.

The success of Aubusson in the eighteenth century was directly dependent upon that of Beauvais. As I wrote in Chapter XII, designs and cartoons, together with a painter and a dyer, were sent from Beauvais to Aubusson in 1731. The painter was Jean Joseph Dumons who, during the Régence, had been one of the three designers at Beauvais of a Chinese set of wall tapestries, one of which appropriately serves as the background of Plate VIII. That tapestry furniture coverings picturing Chinese life, like those shown on the sofa in Plate VIII, should have been woven, perhaps under his direction and from his cartoons at Aubusson as one result of his work there, is only natural.

Of the tapestry furniture coverings woven in America since the industry was established here in 1893, most have been in the style of the French eighteenth century, which is not to be wondered at when we recall that the weavers and the superintendent of the works came originally from Aubusson. The majority of these American-made furniture coverings are of high quality. Indeed, the set of chair and



Plate VIII- LOUIS XV ANCIENT TAPESTRY COVERINGS Made at Aubusson

sofa coverings woven for the drawing room of the late J. Pierpont Morgan compares well with any woven anywhere in the last century and a half.

MODERN CHAIR BACK IN ANCIENT TEXTURE

As regards the future of tapestry furniture coverings, and also of wall tapestries in America, I believe that it depends upon a return to more ancient traditions and styles of weaving. What I mean is illustrated by Plate I. In the fifteenth and sixteenth centuries, designers and weavers co-operated to produce tapestries that were distinguished for the qualities that differentiate tapestries from paintings, rather than for the qualities that tapestries share with paintings. In those centuries the possibility of producing extreme contrasts by means of horizontal ribs and vertical hatchings was taken advantage of to the utmost, and as a result Gothic and Renaissance tapestries have a texture totally unlike the texture of tapestries of the eighteenth century, when paint effects were imitated and the highest praise went to the weaver who reproduced the cartoon most exactly in all its paint values.

The chair back on Plate I, with background of gold in basket weave, was made under my direction to illustrate the practicability of weaving today with Renaissance technique. Ribs and hatchings were used to accentuate the folds of the robe, and hatchings were employed to "mix colours on the loom" in precisely the same manner as in the sixteenth century. The design is reproduced from one of Giulio Romano's borders for the Acts of the Apostles set in the Royal Spanish collection.

GOLD IN TAPESTRIES

At this point I should like to answer a question that is often asked by the members of my lecture promenades at the Metropolitan Museum: "Is this gold, real gold?" It is, but real gold in very small quantity. The gold threads used are not gold wire or even wire plated with gold; they are yellow silk threads wound around with gold tinsel, and the effect when the tinsel breaks away in tiny points from the silk underneath is exceedingly pleasing, much more so than when the surface still remains all shine and sheen of gold. The gold thread of ancient Renaissance tapestries has come down to us in very good condition as a rule, but the gold thread of the seventeenth century—particularly that used at Mortlake—is usually tarnished,

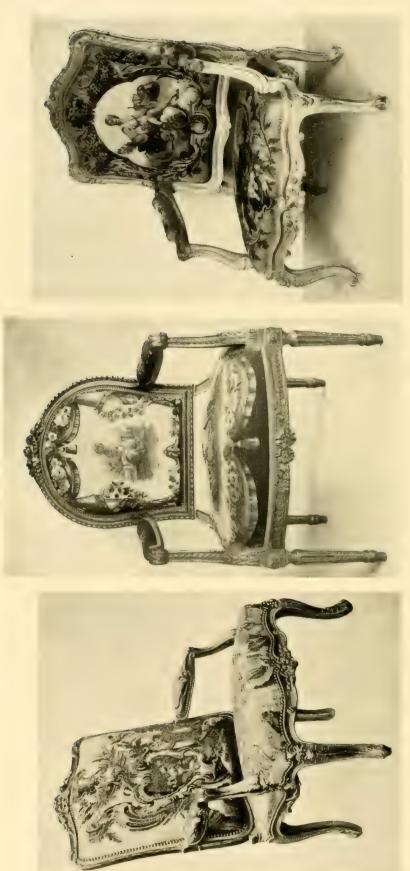


Plate IX—Louis XV tapestry covered chair in the ——Plate X—Louis XV Metropolitan Museum.

Plate X.—Louis XVI ancient tapestry coverings, made at Aubusson.

Plate XI Thomas Thierry tapestry coverings, made at Aubusson.

THREE EXAMPLES OF FRENCH TAPESTRY FURNITURE COVERINGS

with little or none of the gold left. I fear that sometimes the silver ribbon used as a base got its golden yellow not from the king of metals, but like illuminated leathers, from yellow lacquer (see Chapter XX). The base used for the tinsel today is copper, that grows old more gracefully. If I had my way I would introduce gold into all except the very coarsest tapestries, so much do I admire the effect of its contrast with the roses and blues in silk, and the flesh colours in wool.

VERDURES

Amongst the most interesting tapestries ever woven are the Late Gothic mille fleurs that inspired so many of the tapestries designed by Burne-Jones and Morris, and made in England at Merton near London in the last quarter of the nineteenth century. One of these English tapestries is illustrated on Plate IX of Chapter XII. How two American makers have adapted Late Gothic mille-fleurs for use as furniture coverings is illustrated by Plates III and XIII. The coverings in the former are based on a wall tapestry belonging to the late Alexander W. Drake. The coverings in the latter are from a wall tapestry in the museum at the Gobelins. The chair back in the former, which would be described as "mille fleur with birds," shows a crane supine beneath a falcon. The sofa back in the latter, which would be described as a "mille fleur with personages," presents a garden party with a lady at the tiny organ upon the curb of the fountain, whilst a youth picks the mandolin. Mille-fleur coverings are suitable for Late Gothic and Early Renaissance frames, being flat in drawing and having the ground covered with tiny leaves and flowers (whence their name, mille-fleur or thousand-flower tapestries).

Very different are these Gothic verdures from those that were developed in the latter part of the seventeenth century, and flourished through the eighteenth, like the coverings illustrated on Plate II. The latter are distinctly paint style, relying for their principal effects upon contrasts of light and shade, with line and colour both weak.

Examples of verdure tapestries executed in England at the Mortlake works near London in the last half of the seventeenth century, are the coverings of the Charles II sofa, chair and stool of Plate VI which are to be seen in the Victoria and Albert Museum at South Kensington. It will be noticed that the details of these English seventeenth century weaves are larger in scale than are the details in the Gothic mille-fleurs, and the eighteenth century verdures.



Plate XII—SCREEN PANELLED WITH ANCIENT BRUSSELS RENAISSANCE TAPESTRY

AMERICAN INNOVATIONS

With the tapestries from American looms, illustrated on Plates IV and XIV, I am especially pleased. They take their inspiration from Old English needlework, but in such a way as to produce the charm of innovation rather than the suggestion of imitation. Without losing the fascinating character of tapestry texture, they have introduced variety and special interest into it by the addition of some of the qualities found in ancient needlework. From the texture point of view, they are delightful, and constitute an important addition to tapestry technique. From the commercial point of view they are a success, selling for a little over half the cost of modern needlework of the same fineness, and being much more durable. Especially do I admire the chair seat on Plate IV.

An especial interest attaches to the coverings on the Chinese Chippendale sofa of Plate XIV, because they were designed to meet an actual condition. The American maker of the frame wanted upholstery more appropriate than anything he had been able to procure, and admits that he got it. The fact that many individuals will mistake this tapestry for needlework is no argument against it. They are the same persons who now mistake needlework for tapestry. Besides, it is almost certain that the so-called *pctit points* were in their origin merely imitations of woven tapestries.

The obvious difference between the two is in the surface texture, that consists of ribs in woven tapestry and of points in needlework tapestry. Also, in needlework tapestry the background is often in coarse point (gros point) while the faces and hands and other parts of the figures are in fine point (petit point), an effect that has recently been for the first time imitated in real tapestry, and by an American maker who uses fine warps doubled for the background, and single where the petit points come. Furthermore, while the lines of the surface of woven tapestry run only one way (with the warp), those of the surface of needlework tapestry run both ways (with the weft, as well as with the warp), and are less pronounced. The basis or starting point of needlework tapestry is coarse canvas or étamine or buratto or some similar hard-spun fabric in loose texture.

MODERN DYES

I am often asked about the dyes of modern tapestries. Are they vegetable or aniline, and will they last as well as the old ones?



Plate XIII MILLE-FLEUR TAPESTRY COVERINGS Made in America



PLATE XIV MODERN TAPESTRY-COVERED SOFA Made in America

I am glad to be able to answer that nearly all of the modern establishments weaving tapestries use exclusively the same dye materials as were used in the sixteenth century, and compound them in the same manner as they were compounded in the sixteenth century. For illustration of these materials, see page 253 of my book on Tapestries. Tapestries, the wool of which has been properly washed—with enough of the lanolin left in to keep it alive—and the wool and silk of which have been skilfully dyed with these vegetable dyes, are just as permanent in colour as ancient Gothic and Renaissance tapestries, and much more permanent than most of those of the seventeenth century, and many of those of the eighteenth century. Tapestries of wool or silk that have been dyed with aniline dyes are not worth house room. Any tapestry maker who admits the use of anilines in his work should be avoided.

MODERN CARTOONS

Another point with regard to the weaving of modern tapestries for either furniture coverings or wall panels: The taste of the customer, be he dealer or individual, or painter or architect, should never be consulted with regard to the full-size coloured cartoons. His opportunity for criticism should be confined to the original small colour sketch (petit patron), and to the finished tapestry. The grand patron he should never see, for he will not understand this technical tapestry pattern any more than he would understand a dress pattern, and by insisting on paint qualities in the cartoon, and on having the weaver copy the cartoon exactly, he will prevent the production of a tapestry tapestry.

Credit for illustrations: Plates I, III, XII, Wm. Baumgarten & Co.; Plates II, VIII, X, P. W. French & Co.; Plates IV, V, XIV, the Edgewater Tapestry Looms; Plate VI, the Victoria and Albert Museum; Plates VII, XI, the Palmer & Embury Mfg. Co.; Plate IX, the Metropolitan Museum of Art; Plate XIII, Pottier & Stymus.

CHAPTER XVII

CHINTZES AND CRETONNES

Chintz is the English word, cretonne the French word, for drapery prints. Consequently, when the two words are used side by side, we are apt to find the English prints, particularly those of many colours, fine texture and small floral designs, called chintzes, whilst the French prints of larger design on heavier cloth are called cretonnes. The chintzes used in England are often glazed, but the difficulty of having them freshened by re-glazing in America, has prevented glazed chintzes from becoming popular here.

The French word cretonne is said to be derived from the Norman village of Creton, which was once famous for the weaving of drapery cloths. However, the term commonly used in France in the eighteenth century for French prints as well as for the Oriental ones that they imitated, was indiennes or persiennes (Indians or Persians). The English word chintz is already a plural, though now through long error used as singular. The original singular was *chint*, as illustrated by Pepys in his famous diary under date of September 5, 1663: "Bought my wife a chint, that is a painted Indian calico, for to line her study." The word is Hindoo, derived from the Sanscrit *chitra*, meaning "many-coloured." Murray's great dictionary defines chintz as "Originally, name of painted or stained calicoes imported from India; now, cotton cloths fast printed with designs of flowers, etc., generally not less than five colours and usually glazed."

While both the French and the English cloth prints of the seventeenth and eighteenth centuries were imitations of the Oriental product, the process of making was entirely different. In India the patterns were painted or pencilled on, in the form of direct colours or resists, or mordants, while in France and England blocks of wood or flat plates of copper were used—the wood blocks carved in relief, and the copper-plates in intaglio like those that produce modern engraved



Plate I HAND-PAINTED COTTON OF THE SEVENTEENTH CENTURY FROM AMBER, INDIA From the Brooklyn Museum collection

DECORATIVE TEXTILES

visiting cards. The copper plates were used for printing on silk (Plate XXX), and for the finer and more intricate designs on linen or cotton.

Both of these processes, though undoubtedly known and occasionally practised in China for centuries before, were fully developed only in Europe, and in the eighteenth century, to imitate the Oriental "painted calicoes." The memory of this is still preserved in the French word for wall papers (papiers peints), as well as in a phrase often used for printed cloths (toiles peintes). Cloths were, for the most part, painted in India and Persia and China; but in France and England and Germany they were printed from blocks, thus illustrating the tendency in Europe to substitute mechanical processes whenever possible for the hand work of Asia. Furthermore, if we classify the various arts according to their origin and development, we shall be obliged to admit that printing is, after all, merely a mechanical block method of painting or drawing or writing.

PLINY ON CHINTZ

Very properly did Pliny, writing in the first century A. D., in book 35 of his Natural History, classify Egyptian chintzes under painting. He describes them as follows:

Pingunt et vestes in Ægypto inter pauca mirabili genere, candida vela postquam adtrivere illinentes non coloribus, sed colorem sorbentibus medicamentis. Hoc cum fecere, non adparet in velis: sed in cortinam pigmenti ferventis mersa, post momentum extrahuntur picta. Mirumque, cum sit unus in cortina colos, ex illo alius atque alius fit in veste, accipientis medicamenti qualitate mutatus. Nec postea ablui potest: et cortina non dubie confusura colores, si pictos acciperet, digerit ex uno, pinguitque dum coquit. Et adustæ vestes firmiores fiunt quam si non urerentur.

"They also paint clothing in Egypt in a manner extraordinarily marvellous. After they have finished the cloth white, they line it not with colours, but with mordants that absorb colours. When this is done, it is not apparent on the cloth; but when the cloth is dipped in the dye pot, after a moment it comes out painted. And the strange part is that although there is only one colour in the pot, that colour produces several on the cloth, varying according to the quality of the mordant that it receives. Nor can it afterwards be washed out. So the dye pot, that would undoubtedly blend the colours together, if it



Plate II—HAND-PAINTED COTTON OF THE SEVENTEENTH CENTURY FROM AMBER, INDIA From the Brooklyn Museum collection



Plate III—GOTHIC ANTEPENDIUM (ALTAR FRONTAL) PRINTED IN BLACK FROM NINE BLOCKS

Showing Christ, Saint Barbara, Saint George, Mary and John, with Gothic inscription and ornamental border. Tyrolian of the fifteenth century

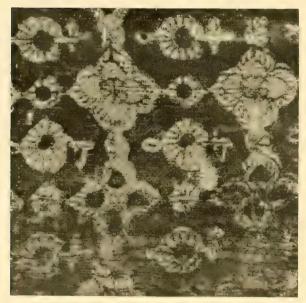




Plate IV COTTON PRINTS OF THE SIXTH CENTURY A. D. FROM EGYPT At Admin have been found two of the tiny wooden blocks from which such cloths were printed, one of them showing two peacocks facing a tree; the other, a spool with pattern on each end, 1 4/5 inches high with diameter of 1 3/5 inches.

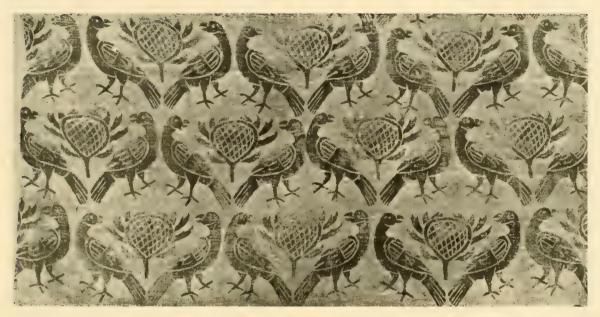


Plate V – THIRTEENTH OR FOURTEENTH CENTURY PRINTED LINEN IN BLACK From Cologne



Plate VI ROMANESQUE, TWELFTH OR THIR-TEENTH CENTURY, IN SILVER ON BLUE LINEN From the lower Rhine



Plate VII -GOTHIC WALL HANGING PRINTED IN THREE COLOURS French-Flemish of the fifteenth century

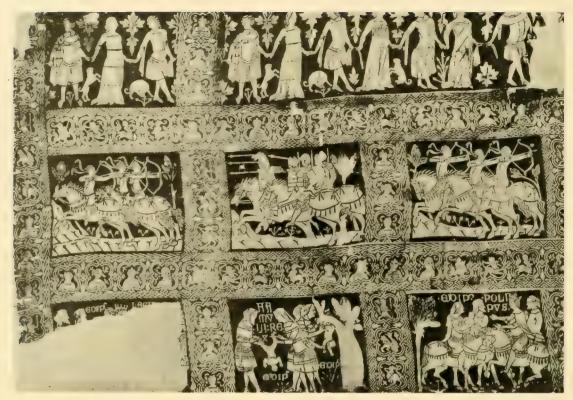


Plate VIII—PART OF AN ITALIAN FOURTEENTH CENTURY WALL HANGING Three feet high, in black and red on linen. In the upper row are men and women dancing; in the middle row, knights and Saracens fighting; in the lower row, the story of Œdipus (Edip) whose ankles are pierced by the king's servants (Famvliere), and who, when exposed for death, is rescued by King Polypos (Polipvs).

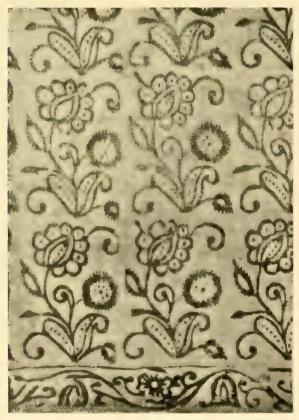


Plate IX RHENISH SIXTEENTH CENTURY PRINT In black on white linen

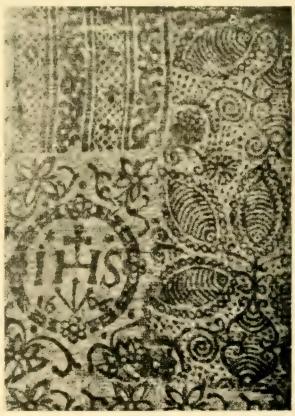


Plate X: CHALICE COVER IN BLACK ON WHITE LINEN
With I. H. S. (Latin initials for Jesus Saviour of Men) and the date, 1606, Germany

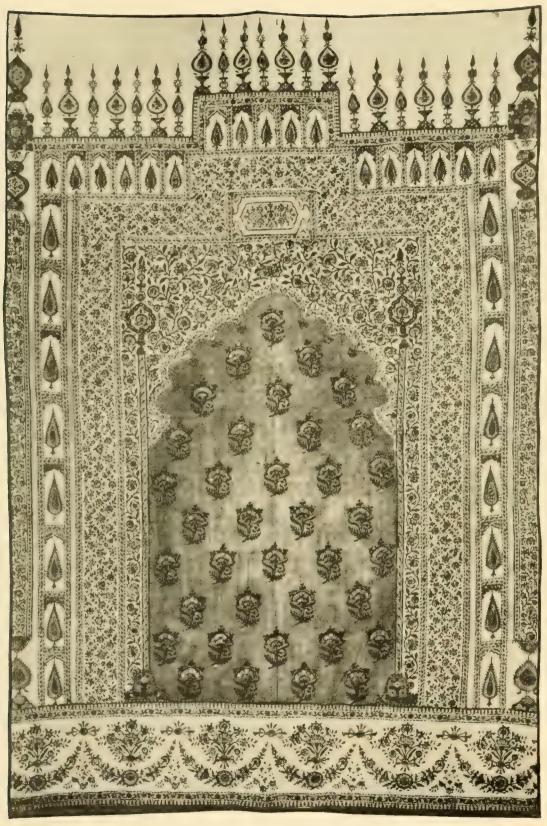


Plate XI—EIGHTEENTH CENTURY PERSIAN PAINTED PANEL ON LINEN 34×51 Inches

DECORATIVE TEXTILES

received them already painted, selects them from one single colour and paints while it boils. And the dyed cloths are firmer than if they were not dyed."

CHINTZES FROM INDIA

Fifteen centuries later "painted cloths" (Plates I, II, XI, XII, XIII) were introduced into Europe from India by the several East India companies. The first in the field were the Portuguese who discovered the way around the Cape of Good Hope in 1498, and thus captured much of the trade that had previously been handled by the Venetians and the Genoese via the Persian Gulf, Busra, Bagdad, Aleppo and Beyrout. In the fourteenth and fifteenth centuries Bruges was the distributing centre for northern Europe, succeeded in the last half of the fifteenth by Antwerp, and towards the end of the sixteenth by Amsterdam. In the seventeenth century, with the organisation of the Dutch and London East India companies, and later, in 1664, of the French East India Company, the Portuguese lost their monopoly and there was a lively contest between the different nations for control of the Oriental trade.

In 1693, Dr. Havart, a Dutch botanist, long resident in India, remarked: "The painting of chintzes proceeds in the most leisurely manner in the world, in a manner similar to the crawling of snails, which appear to make no headway. Anyone who would represent patience and had no other model, could use one of the chintz painters of Palicol."

In 1742, Father Cœurdoux, a Jesuit missionary resident at Pondicherry, wrote home to Europe:

"The painter or artist, having prepared his design upon paper, next has to transfer it on to the cloth. He begins by pricking the main outlines of the design with a fine needle, then lays his paper on the cloth and passes over it a pad containing charcoal powder which, penetrating through the pricked holes, by this means transfers the main features of the design on to the cloth." He then continues as follows (abbreviated):

- (1) Black. First, black made from iron filings is pencilled in over the charcoal tracing and made to set fast with boiling water.
 (2) Blue. Next a wax resist is painted over the parts where blues
- or greens are not to appear and the cloth is sent to the indigo dyer.
- (3) Red. Next a wax resist is pencilled in where white tracery is to



Plate XII—HAND-PAINTED COTTON OF THE SEVENTEENTH CENTURY FROM INDIA, USED FOR COVERING WALLS AND CEILINGS
From the Brooklyn Museum collection

DECORATIVE TEXTILES

appear over reds, pinks or lilacs; and red, pink and lilac mordants are applied by painting or pencilling in the manner described by Pliny seventeen hundred years before. The places on the cloth for the reds are painted with a stronger emulsion of alum than the places for the pinks, whilst the violets have a mixture of alum and iron liquor. Then the red dye pot develops the reds just as it did in the days of Pliny. (4) Yellow. Finally, the yellow is applied direct, being painted over the places where yellow is required, and also where the blue is to be turned green. At this point, it should be explained that the Indian pencils (more properly called pens) are made of bamboo, sharpened and split at the end.

I agree with the English manufacturer and authority on painted and printed cloths, George Percival Baker, that no modern method of printing in direct colours can produce results so fine, so solid and so beautiful as have been achieved by the ancient Egyptian and Indian process of "dye-painting."

IN THE WEST

Not long after the middle of the seventeenth century the cloth printing industry began to develop in England. In 1677 Sir Josiah Child, a director of the London East India Company, states that goods in the grey were then coming from India to be printed on in imitation of Indian chintzes. In 1700 the importation of the real article from India was prohibited by Parliament in order to protect and encourage the home manufacturer. In France not only the imported but also the domestic *indiennes* were prohibited until 1759, so that the development of French printing on linens and cottons only became important then.

Pliny's is not the only evidence as to the early use of painted cloths in the Mediterranean countries. Herodotus says that the Caucasians wore garments into which representations of animals had been dyed so as to be tub-fast. Fragments of cloth from Achmim, in Egypt, about three centuries later than Pliny, show patterns and figure subjects stamped from blocks (Plate IV). Especially interesting is a block-printed cotton from the grave of Bishop Cæsarius, who was buried at Arles, near Marseilles, A. D. 543. An especially important fragment is that found in an ancient tomb at Quedlimburg, in Germany, which Dr. Lessing called Sassanid-Persian of the sixth or seventh century.

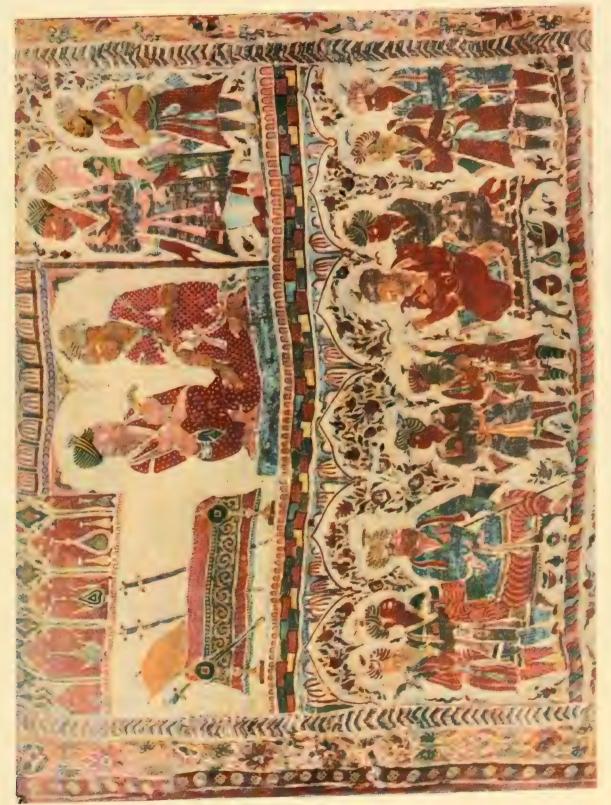
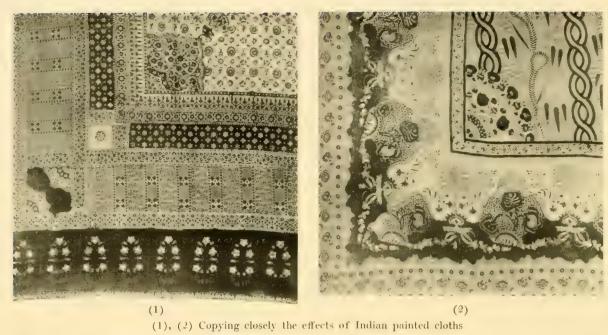
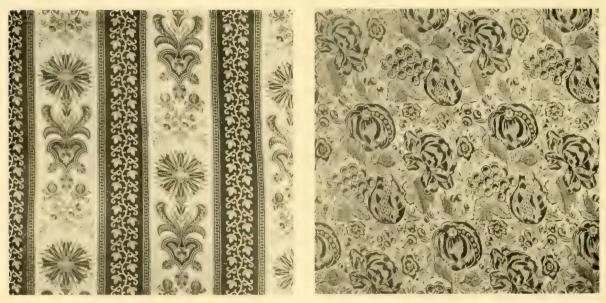


Plate XIII- HAND-PAINTED COTTON OF THE SEVENTEENTH CENTURY FROM INDIA, USED FOR COVERING WALLS AND CEHANGS
From the Brooklyn Museum collection





(3) Moorish mixed with Classic

(1) Pomegranate pattern in reds

Plate XIV ANCIENT PORTUGUESE BLOCK PRINTS

GERMAN AND ITALIAN

According to Dr. Forrer of Strasburg, whose two books in German on Fabric Prints are the most important published, the art of ornamental block cutting was developed in mediæval Rhenish monasteries. The initial letters of thirteenth century manuscripts sometimes had their outlines stamped from blocks. German documents of the fourteenth century bear the names of block cutters and cloth printers as witnesses. From the eleventh century on, the rich damasks and brocades and figured velvets of Sicily, Byzantium and Italy were imitated in German block prints on linen, the earlier ones with free use of gold and silver (Plates III, VI, X). The printing of textiles in Europe precedes by several centuries the printing of (A French-Flemish colour print of the fifteenth century is illustrated on Plate VI). In the seventeenth century Augsburg was famous for linens printed largely in ancient patterns and in the ancient Rhenish manner, and supplied many craftsmen for the development of cloth printing in Alsace and in Switzerland, as Alsace and Switzerland did later to France.

However, the oldest written instructions on the block printing of cloth are not German but Italian (Plate VIII) and are contained in Chapter 173 of Cennino Cennini's late fourteenth century "Treatise on Painting." There Cennini describes the engraving of intaglio wooden blocks for printing in black the outline of the pattern that is to be coloured up later with the brush. He heads the chapter with: "The way to execute paintings on cloth with the block," and begins it with: "Because to the art of the brush there still belong certain works painted on linen cloth, which are good for boys' and children's robes and certain church pulpits, here is given the way to execute them."

Also interesting are the directions for block printing given in a fifteenth century German manuscript preserved in the public library of Nüremberg and evidently based on much earlier treatises. The manuscript was originally preserved in the Convent of Saint Catherine in Nüremberg, and in the sixteenth century, as the dedication shows, was presented by the Prioress of the convent to one of the Sisters. The book is in three parts, the first dealing with church vestments, the third with stained glass and the second with the "printing silver and gold and of wool and of all colours, and how one prints pictures of paper."

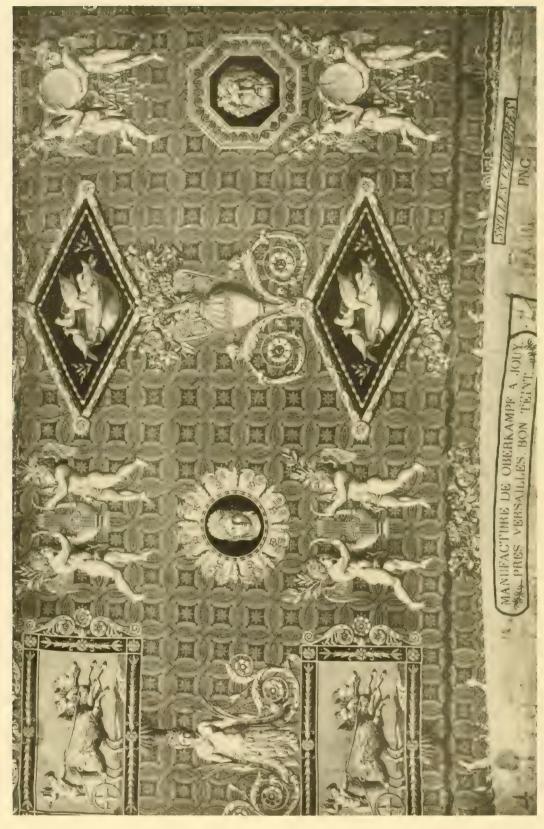


Plate XV "LES COLOMBES" (THE DOVES)
An ancient Jony copper-plate print in brown on linen, showing Oberkampf's signature

JOUY PRINTS

In the last half of the eighteenth century, as soon as the government restrictions were removed, France (Plate XXV) quickly equalled and surpassed all that had been done before. The leader in the new industry was the famous Philip Oberkampf, born in Ansbach in 1738. His father practised cloth printing and dyeing rather unsuccessfully in several parts of Germany, and finally settled down in Aargau, Switzerland. The son was trained in his father's business and after having also had some experience with Kochlin and Dollfus at Mülhausen, in Alsace, went to Paris at the age of nineteen, had himself naturalised, and in 1758 or 1759 set up a small workshop in the little village of Jouy near Versailles. As his entire resources were not over 600 livres, the whole equipment was necessarily exceedingly primitive.

Oberkampf himself built the printing tables, designed the patterns, cut them on wood and personally looked after the printing as well as the dyeing and all the other details. His success was almost immediate and before long his printed cloths (Plates XV, XVI, XVII) attained such vogue as to be especially mentioned in auction catalogues, such as that of M. Parseval in 1782, "un meuble de salon d'été en toile de Jouy," or that of Sieur Larsonnier, "lits de toile de Jouy." In 1783, Oberkampf had the honour of receiving a formal visit from Louis XVI, who spoke in high terms of his goods and his enterprise, ennobled him and raised his establishment to "Manufacture Royale." (See the signature of the fabric illustrated on Plate XV, "580" being the number of the pattern; Les Colombes, "the Doves," the name of the pattern; and P. N. G. the man who did the actual printing.)

From that time on, Jouy prints were the vogue not only at court and in the palaces of the nobles, but also in the houses of the rich middle class. The sales and the profits were immense. The number of employees reached 1,500. Oberkampf gave them their own houses, hospitals and old age pensions, and looked after their interests in every way. Constantly the quality of the product improved and soon outclassed the German, Alsatian and English prints. Oberkampf shrank from no expense to improve his processes. He sent agents everywhere, even to the Orient, in order to discover the secrets of the brilliant colours of India and Persia. In 1806 he received a gold medal at the Paris Exposition.



Plate XVI JOUY COPPER PRINT IN RED

Made about 1785, and signed "Manufacture Royale de S. M. P. Oberkampf," picturing
Oberkampf's factory, together with the processes of plate and roller printing



Plate XVII A JOUY PRINT, THE UNITED STATES RECEIVED AMONG THE NATIONS

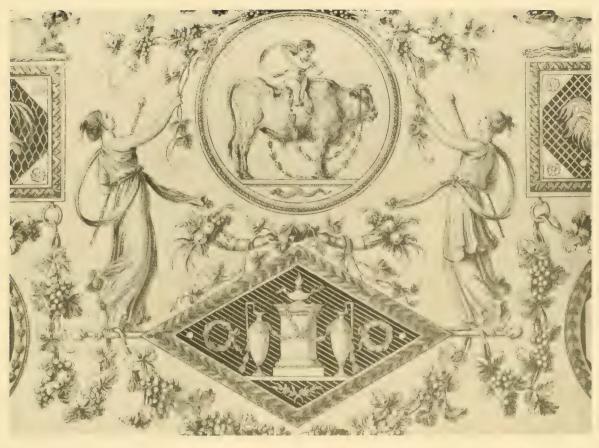






Plate XVIII THREE HUET DESIGNS FOR JOUY PRINTS

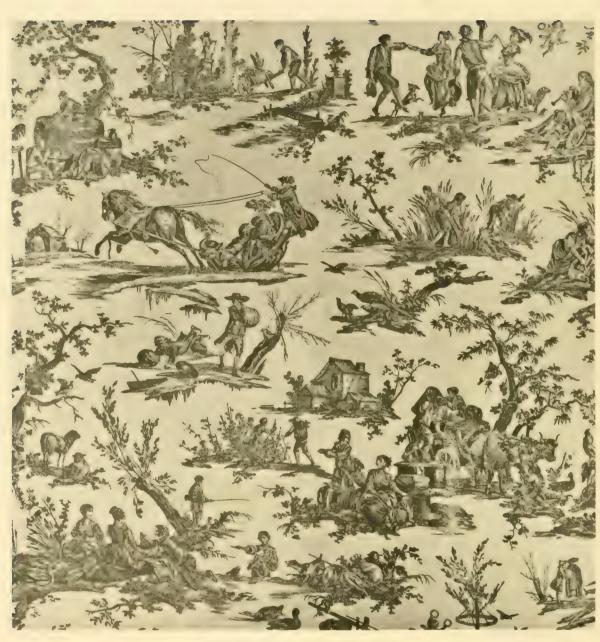


Plate XIX THE FOUR SEASONS From a copper-plate engraving of one of Huet's designs for Jouy prints



Plate XX AN ANCIENT CHINTZ HALUSTRATING THE DECLARATION OF INDEPENDENCE

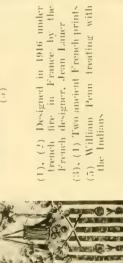












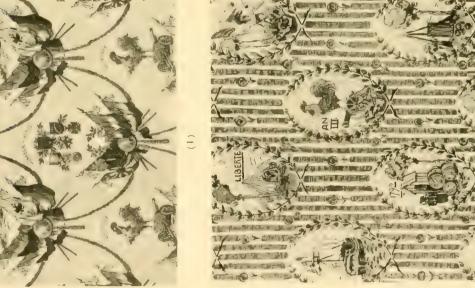


Plate XXI ANCIENT AND RECENT FRENCH AND AMERICAN PATRIOTIC PRINTS

Napoleon is said to have consulted him frequently and to have called him "Seigneur de Jouy." Once when Napoleon was visiting Oberkampf's factory, he is said to have asked him if he had yet received the cross of the Legion of Honour. When Oberkampf answered "No," Napoleon took the one on his own breast and gave it to Oberkampf, saying: "No one deserves to wear it more than you. You and I are fighting a good fight against the English, but your fight is the best." Both men had risen high from small beginnings and both fell together.

In 1815, when the army of the Allies passed through Jouy, they pillaged and destroyed the magnificent factory. "This sight is killing me," said the grey-haired Oberkampf, as he gazed upon his idle and starving men. His health broke down and on the fourteenth of October, 1815, he died.

Oberkampf's establishment served as a model for later ones. In 1785, he was the first to introduce roller printing on the Continent, assisted by a mechanic who came from Great Britain, where the process had been invented by a Scotchman named Bell. It was first applied there in a large way at Monsey, near Preston, also in 1785. The Jouy print reproduced on Plate XVI shows copper-roller printing and copper-plate printing side by side, the latter in the upper right corner, the new roller printing in the foreground. The river in the upper left corner, flowing past the factory, is the Bièvre that also supplied the Gobelin works in Paris with good water. The three workmen with flails are beating and cleaning the cloth to prepare it for printing.

The style of Jouy prints accommodated itself to the fashion of the hour. The earliest were mostly in red and distinctly "Chinoiseries." A few years later come peasant scenes inspired by the paintings and tapestries of Teniers; and still later, allegorical and mythological subjects, and scenes from contemporary history, especially from the beginning of the French Revolution and from the American War of Independence. Many of the best designs of the later period were executed for Oberkampf by Jean Baptiste Huet, so many of whose sketches are preserved in the Musée des Arts Décoratifs at Paris.

MORRIS AND WEARNE

The great designer and maker of linen and cotton and worsted prints in the nineteenth century was William Morris (1834-1896),





Plate XXII—LATE EIGHTEENTH CENTURY PRINTS MADE IN FRANCE Depicting the triumph of Washington, and probably made for the American market



Plate XXIII AN ANCHENT PRINTED CLOTH Showing General Lafayette; on the left, in 1790; on the right, in 1830

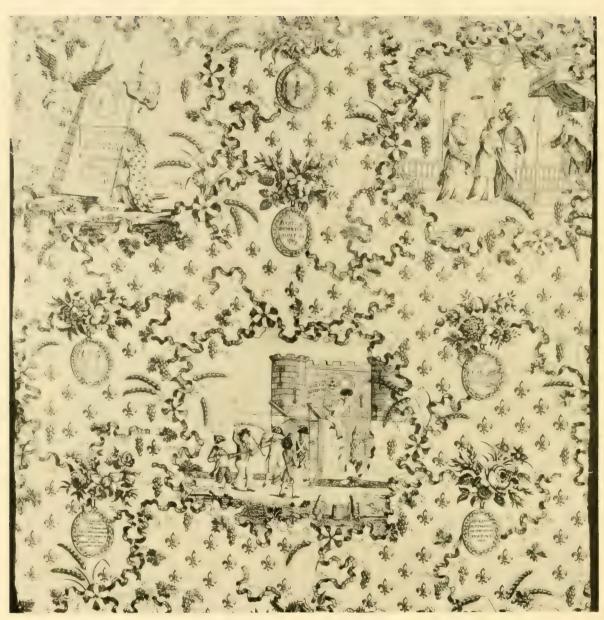


Plate XXIV AN ANCIENT PRINT, THE SO-CALLED TOILE DE LA BASTILE

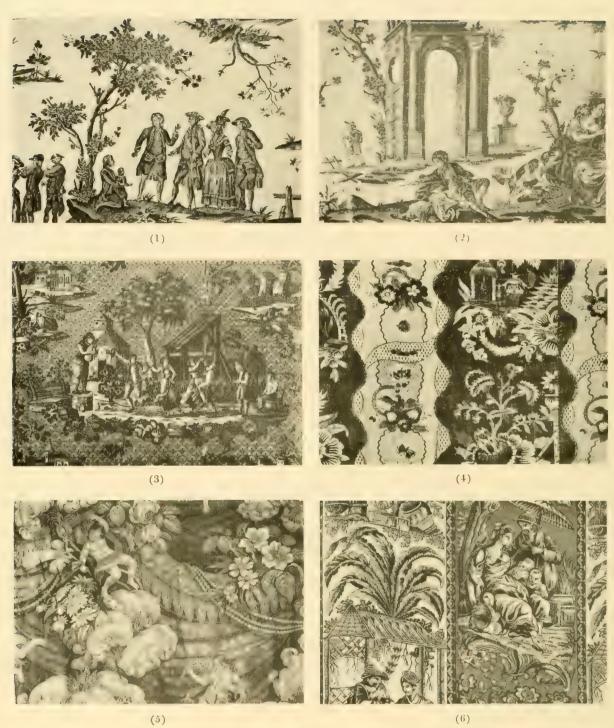
whose work was so good that, like the work of Oberkampf and Huet at Jouy, it is still printed and used (Plates XXVIII and XXIX). It was printed mainly from wooden blocks. For the modern reproduction of Morris's cloths, as well as those of Oberkampf and others, the original blocks are still used.

Today in the United States, on account of labour conditions, the block printing of textiles is impracticable. Nevertheless, we have block prints (Plates XXVI and XXVII) in both new and old designs, which, though printed in England, were originated in New York by Harry Wearne, head of the ancient Zuber works at Rixheim in the heart of the war zone, from which Mr. Wearne, who is an English citizen, escaped into Switzerland just as the British ultimatum to Germany expired. Mr. Wearne, whose American connexions have been close for many years, and who has passed much of his time here, has now taken up his residence permanently in the United States and may now be able here to exercise as important an influence as Morris did in England during the later nineteenth century.

MODERN PROCESSES

The principal methods now used for printing on cloth are:

- (1) From wooden blocks with pattern in relief.
- (2) Perrotine block printing.
- (3) From copper plates with pattern in intaglio.
- (4) From copper rollers with pattern in intaglio.
- (5) Stencilling.
- (1) Hand block printing gives extraordinarily rich and soft effects, particularly in large patterns. The blocks are of box or pear wood backed with pine. The larger surfaces are filled in with felt and the fine details are executed in copper ribbon or wire driven into the wood. In this process each colour dries before the next is applied.
- (2) The "perrotine" is a machine named from Perrot, who invented it in Rouen in 1834. It handles three blocks at a time, imposing the second and the third colours while the first is still fresh. It is limited to three colours and to comparatively small patterns.
- (3) Most of the copper plate prints executed by Oberkampf were in one colour, thus eliminating the necessity of exact register, which is a great disadvantage of the plate process.
 - (4) In roller printing the size of the pattern is limited by the



(1) and (2) Jouy prints; (3) and (4) Rouen; (5) French about 1830; (6) Modern reproduction, printed from the original block of an eighteenth century English print

Plate XXV ANCIENT PRINTED CLOTHS



Plate XXVI—PHEASANT AND LARCH Originated in America and printed in England on linen, from wooden blocks



Plate XXVII—MODERN BLOCK PRINTS Printed in England but originated in America



(1) Rose



(2) Strawberry Thief, in bright colors



(3) Brer Rabbit, in blue

Plate XXVIII THREE BLOCK PRINT DESIGNS BY WILLIAM MORRIS

circumference of the roller, which is usually 15 or 18 inches. The rollers, which were anciently engraved by hand, are now etched or milled. In the etching process an enlarged image of the design is thrown upon a zinc plate with an enlarging camera, and then painted in the proper colours and the outline of each colour engraved by hand. Then the pantograph transfers and reduces the design from the zinc plate to the varnished surface of a copper roller in the form of tiny holes through which the etching acid reaches the copper and eats the design into the roller. In the milling process the pattern is engraved by hand on a small, soft steel roller, which is then hardened by plunging when red hot into cold water. This is the die from which the mill is made. A soft steel roller is rotated against the die until it receives the design in relief. This is the "mill" that when hardened and tempered makes copper rollers galore by being revolved against them.

(5) Stencilling is really painting as distinguished from printing, and uses cut-out patterns through which the colours are applied with the brush.

The printing of fabrics may be either direct or indirect. The four principal methods are:

- (1) Direct printing from blocks, plates or rollers.
- (2) Mordant printing.
- (3) Resist printing.
- (4) Discharge printing.

The first method actually deposits the colours. The second leaves mordants that afterwards in the dye pot make the dye take where the mordant has been printed. Compare Pliny's description of mordant painting. The third method leaves resists that prevent the dye from taking where they are applied. The fourth method deposits acids or alkalies that eat away the colour where they have been applied. Bre'r Rabbit, on Plate XXVIII, was made by discharge printing on a cloth previously dyed blue.

Plate XXX shows an extreme example of fineness of detail and exquisite blending of colour. Indeed, the result looks more like painting than like printing, except for its accentuation of exactness. Certainly, from the engraver's point of view, nothing better could be done. The plates are ancient ones from Mülhausen, and the modern printing with them was done in France.



(1) African Marigold



(2) Wandle



(3) Honey suckle

Plate XXIX THREE CHINTZES BY WILLIAM MORRIS



Plate XXX MODERN SATIN, PRINTED IN BRIGHT COLOURS From ancient copper plates



Plate XXXI MODERN CHINTZ ON LINEN Printed from the ancient blocks

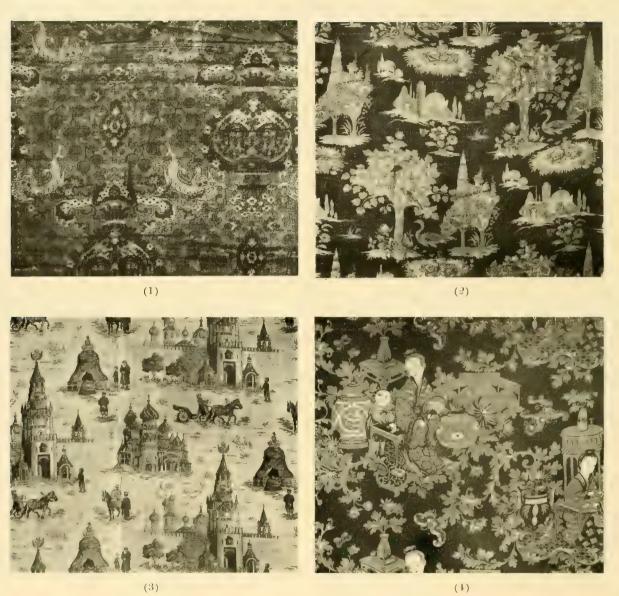


Plate XXXII FOUR MODERN AMERICAN SILK PRINTS

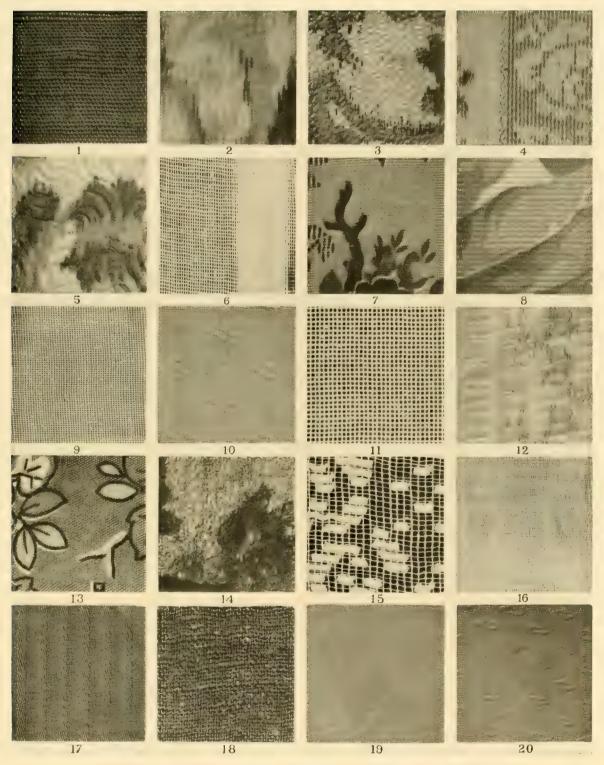


Plate XXXIII -COTTON CLOTH ON WHICH AMERICAN MAKERS PRINT WITH COPPER ROLLERS

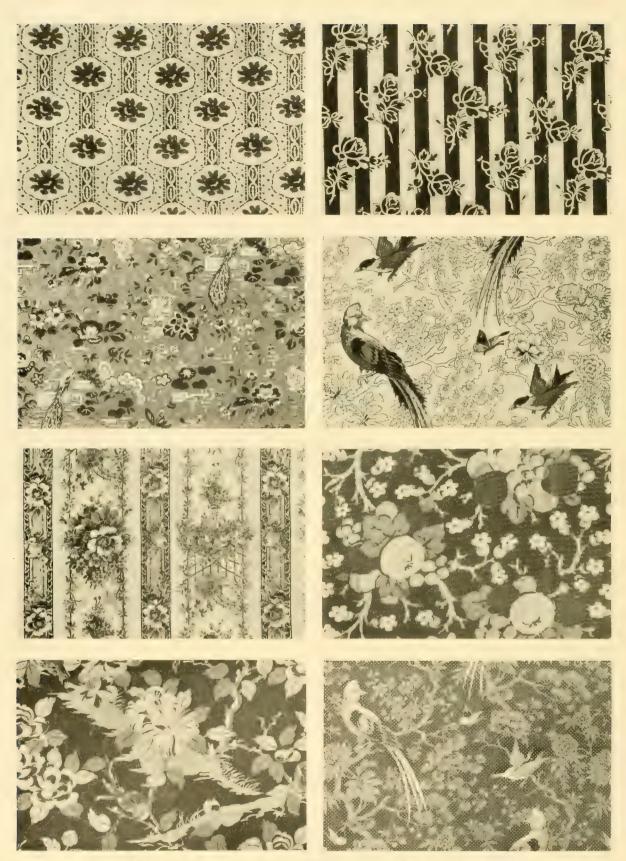


Plate XXXIV = EIGHT CRETONNE PATTERNS JUST BROUGHT OUT BY AN AMERICAN MAKER

AMERICAN ROLLER PRINTING

Silk printing has made a wonderful advance in America in the past ten years. The high artistic quality of some of the drapery designs is shown on Plate XXXII. No. 1 reproduces an ancient European museum brocade; No. 2, an Asiatic mosque, birds and trees; No. 3 is a design adapted by a New York girl from an old Russian wall paper; No. 4, a Chinese children's tea party.

Plate XXXIII shows some of the various cotton weaves used by American printers to secure various effects. The obvious peculiarities of the weaves are:

(1)Homespun, fine warp with coarse, irregular weft, that gives a ribbed and homespun look to the surface. (2) Swansdown, an open, plain weave with fuzzy yarn that gives a fleecy surface. Almos silk, a silkoline embossed to increase the lustre. (4) Ticking, a firm and heavy warp twill for hard wear, as the name implies. (5) Crepoline, a sateen embossed to increase lustre and give crepy effect. (6) Scrim, a plain, open weave. The sample illustrated is striped by the insertion of extra warps. (7) French rep, fine warp and coarse weft that produces the rep effect. (8) Antoinette rep, a coarse, flat rep produced by inserting the coarse wefts in pairs. (9) Voile, like scrim, but finer and harder spun. (10) Tuileries cloth, a cotton taffeta figured by floating the wefts. (11) Marquisette, a net formed by warps twisting in pairs around the wefts. Krinkle cloth, a plain, open weave embossed to give the crinkly effect to Austrian shades. (13) Standish cloth, a firm and durable plain weave with diagonal ribs formed by coarse wefts that interlace pairs of warps. (14) Terry cloth, a shaggy, irregular weave with twisted and uncut warp pile. (15) Madras, marquisette (see above) figured by weaving in pairs of soft extra wefts and then cutting away the floats. The rough side is the right side. (16) Silkoline, a cheap, plain, open weave of fine yarn, finished to look as silky as possible. Dimity, warp twill stripes in relief on ground of plain weave. Crash, plain, loose weave of irregular yarn. (19) Sateen, a coarse cotton satin with weft instead of warp surface. (20) Norman cloth, a cotton taffeta with tiny relief figures formed by floating the wefts.

Credit for illustrations: Plates III to X and XVI, XVIII, XIX, XXI 5, XXII, the Library of the Metropolitan Museum; Plates XI, XV, XXV, XXVI, XXVII, Harry Wearne; Plates XXVIII and XXIX, A. E. Bulkeley and Morris & Co.; Plate XXX, A. E. Bulkeley; Plate XXXII, Cheney Bros.; Plates XXXIII and XXXIV, Elms & Sellon.

CHAPTER XVIII

WALL PAPERS

THEIR ORIGIN, HISTORY AND MANUFACTURE

Papers used to cover side walls and ceilings are called "wall papers." They are usually attached directly to the walls with paste, but are sometimes backed with muslin or canvas before pasting, or before being attached to battens like fabric wall hangings. The latter method is preferable for scenic and picture papers of great value, as it preserves them from injury by possible dampness of the walls, and enables them to be safely removed and rehung in case of necessity.

Most paper is now made by machine in continuous rolls that are cut apart to the length required. English wall papers are usually sold in rolls 12 yards long and 21 inches wide; French and German wall papers in rolls 9 yards long and 18 inches wide; American wall papers in double rolls 16 yards long and 18 inches wide. Previous to the nineteenth century—paper being made by hand only and in small sheets—wall papers were either printed and sold in small sheets, or rolls were made by pasting together sheets before printing.

The invention of paper is commonly attributed to the Chinese, despite the fact that the word paper is derived from papyrus, one of the two sacred plants of the ancient Egyptians, the other being the lotus that Professor Goodyear, of the Brooklyn Museum, has exploited in an epoch-making book. As a matter of fact, the Egyptians used paper made from the papyrus more than 3,000 years before the Chinese discovered how to make paper from the mulberry and the bamboo. Also, both the Greeks and the Romans used Egyptian paper made from the papyrus, and continued to use it until the fifth century A. D., when the arts of western Europe were submerged beneath the hordes of wandering barbarians. After that most of the writing done in European monasteries appeared on the polished skins of sheep and other animals (parchment and vellum).

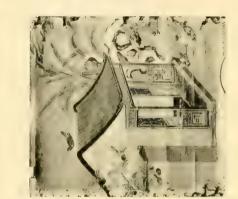


Plate I—"THE ORIGIN OF WALL PAPER"

A Chinese painting in the style of Kien-lung, picturing the Taoist fairy,
Mo-ku-hsien, with attendant deer



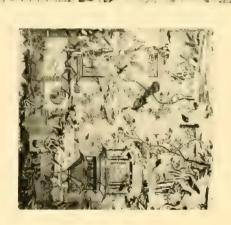
















After hanging on the walls of an old English house for two centuries, it was taken down and sold to the Metropolitan Museum of Art in the fragments illustrated, which have since been matched together, supplemented where necessary and hung on the walls of the Cadwalader room in the Museum Plate II WALL PAPER PAINTED IN CHINA



360

WALL PAPERS

During the Dark Ages, from the fifth to the tenth centuries, paper making declined in Egypt, and came practically as a new art when brought west by the Mohammedans, who acquired it in Central Asia from the Chinese in the eighth century.

Here it is interesting to note that the Chinese paper was superior in quality and durability to the papyrus paper of Egypt, having a smoother surface with fibres more completely macerated. Evidence of the acquisition of the art by the Mohammedans are the numerous Arabic manuscripts on paper, which have been preserved, dating from the ninth century. By the Mohammedans the manufacture of paper was established in Sicily and in Spain, and, upon the Christian occupation of these countries, was taken over by the Christians and introduced into Italy and France. In Italy, the first place to become famous for paper making was Fabriano, where mills were set up in 1276, and where papers like the ancient ones are still made and exported to New York and elsewhere. During the second half of the fourteenth century, the use of paper for literary purposes became common in all western Europe, and before the end of the fifteenth century it had entirely supplanted parchment and vellum.

Technically, paper may be described as thin sheets or rolls composed of cellulose fibres that have been felted together under water. The forms and combinations of paper are various but the constituent materials (carbon, hydrogen and oxygen) are always the same and in the same proportions. Linen and cotton rags consist of such fibres from which the impurities are easily eliminated, but wood, straw and esparto require elaborate chemical treatment with great heat. Until the middle of the nineteenth century most European paper was made of rags.

THE ORIGIN OF WALL PAPERS

While wall papers are of Chinese origin, the Chinese themselves never used them as wall papers, and only recently have begun, like the Hindoos, to imitate a fashion set by Europeans. Plate I, in colour, entitled "The Origin of Wall Paper," reproduces not a Chinese wall paper but a Chinese painting. In other words, the origin of European wall papers is to be sought in the Chinese paintings on paper which were brought to Europe in considerable quantities in the seventeenth century. Such paintings, instead of being framed in the European fashion, are mounted by the Chinese on rollers and hung around the



(1) A Teniers tapestry in paper



(2) Psyche at the Bath, designed by David for Napoleon

Plate III FAMOUS PICTURE WALL PAPERS Printed in Paris from the ancient hand blocks

WALL PAPERS

walls of a room as temporary, but never as permanent, decorations.

Chinamen are born brush in hand and write, not with a pen, but with a brush. The brush is the national method of expression in China and every Celestial takes his brush in hand just as recklessly as we take the pen. Consequently, painting is so common in China that every family of any position has hundreds of rolls of paintings, which are opened about as often as we open the books in our bookcases. The monotony of seeing the same pictures hanging on the same walls week in and week out, year after year, would shrivel the artistic souls of those whose familiarity with the brush keeps them from slavish adoration of the images that it produces.

Wall paper as wall paper is a European development of the eighteenth century, started by the European vogue of Chinese paper paintings. As soon as Europeans began to attach papers permanently to walls, and use them as all-over wall decorations, and to have papers painted to order in China (Plate II shows such a paper that is now in the Metropolitan Museum of Art), and block printed in Europe, wall paper had been invented. Before that wall papers did not exist. Before that the papers used to decorate walls were separate pictures like our water-colour drawings, engravings and prints of today.

The genius of Europeans is different from that of the Chinese. Whilst many of the earliest European imitations of Chinese papers were painted with the brush, the extraordinary development of printing in Europe (prevented in China by the cumbersomeness of the Chinese alphabet) had prepared Europeans to print what the Chinese usually painted. So wooden blocks were cut for each colour of the design and the block printing of wall papers became an important industry in England and in France.

Side by side with the block-printed papers there continued to be used the Chinese painted papers, which had first been imported in small quantities by the Portuguese in the sixteenth century and in larger quantities by the Dutch, French and English in the seventeenth century. Macky, in 1720, speaks of Sir Richard Child's residence as having "a parlour finely adorned with China paper, the figures of men and women, birds and flowers, the liveliest I ever saw come from that country." Sir Joseph Banks wrote in his *Journal* in 1770: "A man need go no further to study the Chinese than the China paper, the better sort of which represents their persons and such of their customs,

DECORATIVE TEXTILES

dresses, etc., as I have seen, most strikingly like, though a little in the caricatura style."

Such papers were customary gifts from ambassadors and merchants in China to their friends at home. Many boxes, each usually containing twelve lengths, have in recent years been discovered unused in the attics and lumber rooms of old English country houses. Also, many of them are still on the walls where they were first hung, notably the one in the bedroom at Badminton; and the one in the Baroness's room at Coutts's Bank on the Strand, brought to England by Lord Macartney, the British envoy to China, who immortalised himself by refusing to "kowtow" to the Chinese Emperor. In 1780 a paper representing the various trades and occupations of China was hung in the drawing room of Brasted in Kent, by Dr. Turton, favourite of King George III, who is said to have received it as a present from the Emperor of China.

Wall papers played havoc with the plans of those whose devotion to the Italian Renaissance as expressed in Italy by Palladio, introduced into England by Inigo Jones, and revived by Sir William Kent, demanded that interiors be accentuated with architectural ornament in relief. Isaac Ware, in his book on "Classic Architecture," published in 1756, was peculiarly distressed by the fact that "paper has taken the place of sculpture," by paper meaning wall paper, and by sculpture, architectural columns, pilasters, pediments and mouldings in stone or wood or plaster. A large proportion of the early French and English papers bore designs that were either Chinese (more or less Europeanised) or Chinese and Rococo mixed. Probably Ware was less hostile to the crimson flock papers, some plain and some with Genoese velvet patterns, because they could be used in Classic interiors. These flock papers, made by covering paper with a sticky substance and then dusting the surface with powdered wool, had been used to line boxes and furniture and as screen fillers as early as the fifteenth century, and in small panels on walls perhaps as early as the first half of the seventeenth century.

We also have many interesting items about the use of Chinese papers in France in the eighteenth century. In 1770 there were advertised for sale in Paris "twenty-four sheets of Chinese paper, with figures and gilt ornaments, each ten feet high by three and a half wide, at twenty-four livres a sheet." In 1779 an apartment in Paris was advertised to let, having "a pretty boudoir with China paper in



Plate IV—"THE CHINESE GARDEN" Λ hand-blocked landscape paper, made in Alsace about 1840, after designs by French artists The illustration shows two widths out of the ten forming the complete picture



(1) The Macaw frieze designed by the gifted French painter, J. François Aubertin, the favourite pupil of Puvis de Chavannes



(2) Isola Bella, originated about 1840



(3) Panier Fleuri, originated about 1830 by Luigi Testoni, at the Italian wall paper factory in San Pier d'Arena, near Genoa

Plate V - THREE HAND-BLOCKED ALSATIAN PAPERS

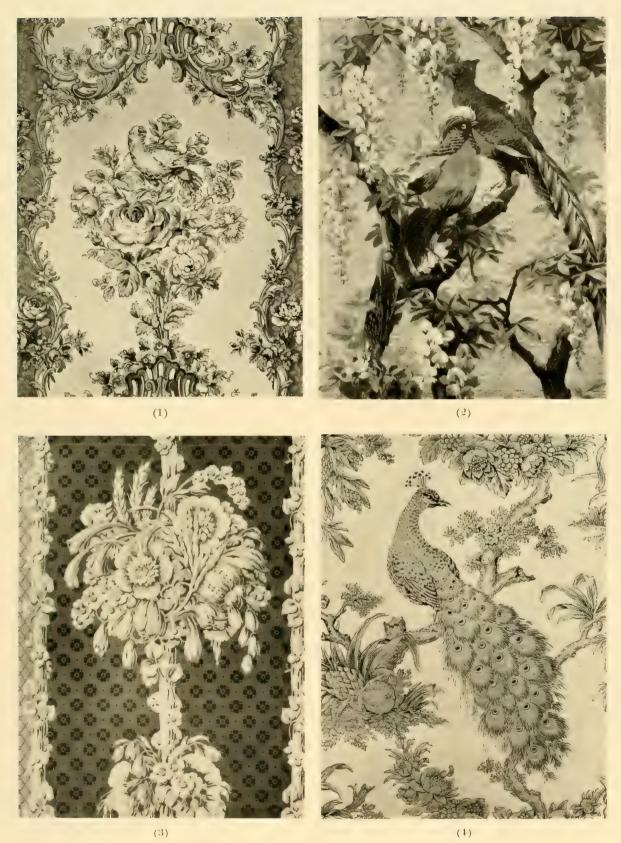


Plate VI MODERN MACHINE-PRINTED ZUBER PAPERS Except No. 3, which is hand blocked



Plate VII MODERN MACHINE-PRINTED ZUBER PAPERS IN THE CHINESE STYLE

small figures representing arts and crafts, thirteen sheets with height of eight feet ten inches and combined width of thirty-seven feet." In 1781 "a China wall paper, glazed, blue ground, made for a room eighteen feet square, with gilt moulding."

THE FOLLOT COLLECTION

The most interesting exhibition ever made of ancient wall papers was by the late Félix Follot at the Paris Exposition of 1900. The writer was fortunate enough to have lent him a copy of the privately printed little book prepared by M. Follot with the title "Papiers peints, à l'exposition universelle internationale de 1900." At this point it is important to note that the French name for wall papers is still papiers peints (painted papers), inherited from the period when they actually were painted.

M. Follot had spent forty years in getting together his collection, and the honour of organising the exhibition was only a just reward. According to M. Follot, there was a maker of "flock papers for hangings" at Rouen, in 1610, named Le François. Also, in 1688, Jean Papillon, an engraver, invented the kind of wooden block that is still used in printing wall papers. M. Follot adds that, despite the invention of the block, certain papers for screens, furniture and hangings continued to be illuminated by hand until 1793.

Oddly enough, it was at a wall paper factory, the famous Royal Manufactory of Réveillon, that the French Revolution broke out on April 18th, 1789. Réveillon employed over 300 workmen and bought designs from Huet and other famous artists. A rumour had been circulated that the workmen were to be taxed 15 sous a day and that "bread was too good for them." A mob assembled and proceeded to pillage the factory, throwing the furniture and fixtures out into the street. The troops were called out, and then, as Carlyle puts it:

"What a sight! A street choked up with lumber, tumult and endless press of men. A Paper-Warehouse eviscerated by axe and fire; mad din of revolt; musket volleys responded to by yells, by miscellaneous missiles, by tiles raining from roof and window, tiles, execrations and slain men!—There is an encumbered street, four or five hundred dead men; unfortunate Réveillon has found a shelter in the Bastile."

Réveillon fled to London, where he passed the rest of his life. In 1791, Jacquemart & Bénard succeeded to his business and brought



Plate VIII—DESIGNED IN ENGLAND, MADE IN ALSACE
Modern hand-blocked paper in the Adam style, designed by the English architects, Murray &
Durand, on the basis of an ancient Wedgwood plaque and an Adam vasc

out many important scenery papers, amongst them the "Stag Hunt," which has hung for about a century on the walls of a room in the old Andrew Safford house at Salem, Mass., and which, when illustrated in *Country Life in America*, in November, 1911, was identified by Harry Wearne. Another famous wall paper maker of the period was Joseph Dufour, who in 1814, brought out the famous "Cupid and Psyche" series, which is still being reprinted from the original blocks (Plate III, 2).

Amongst the first wall paper makers in America was Josiah Bumstead, of Boston. He travelled in France in 1824 and in 1834, and left behind him an interesting diary which his son kindly lent to a friend of the writer. Bumstead visited the Zuber works in Alsace and writes that Zuber had succeeded, in 1829, in making the first paper in continuous rolls at his paper factory in Ropperswiller, and had sold the English rights for five thousand dollars. In 1850, Zuber brought back from Manchester, in England, the first wall paper printing machine used in France (like the chintz roller-printing machine, with rollers around the circumference of a huge drum), and in a few years almost all wall papers were machine printed in designs that were mostly bad.

WILLIAM MORRIS

The first note of effective protest was sounded by William Morris, some of whose wall papers were shown at the exposition in London in 1862. Eight papers designed by William Morris are illustrated on Plates XII and XIII. Morris regarded wall papers as of prime significance in the decoration of a house and in his lecture on the "Lesser Arts of Life," says:

"Whatever you have in your rooms, think first of the walls, for they are that which makes your House and Home, and if you don't make some sacrifice in their favour you will find your chambers have a kind of makeshift, lodging-house look about them, however rich and handsome your movables may be."

Even more attractive than Morris's own papers are some of those designed by one whom he inspired, Walter Crane (Plates X, XIV).

WALL PAPERS IN AMERICA

The early use of wall papers in America is established by the following letter printed in the $British\ Decorator$ of December, 1909.

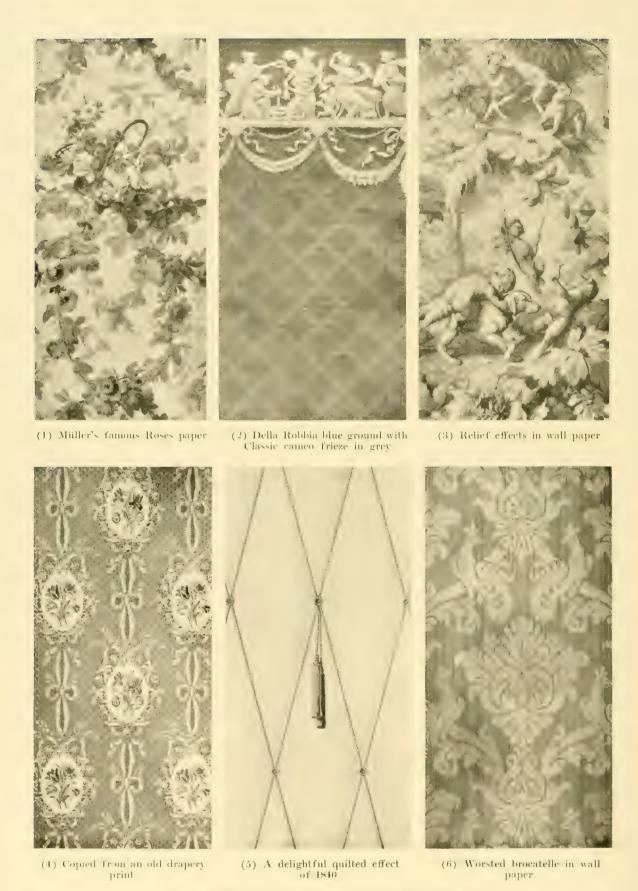


Plate IX SIX WALL PAPERS MADE IN FRANCE All hand-blocked except 5. 4, 3, 6 are from the original blocks

Evidently the paper was to be painted by hand in water colours in the Chinese style.

On January 23rd, 1737, Thomas Hancock, of Boston, Mass., wrote to John Rowe, Stationer, London, as follows: "Sir: Inclosed you have the Dimensions of a Room for a Shade Hanging to be done after the same pattern I have sent per Captain Tanner, who will deliver it to you. It's for my own House and entreat the favour of you to Get it Done for me to Come Early in the Spring, or as soon as the nature of the Thing will admit.

"The pattern is all was Left of a Room Lately Come over here, and it takes much in ye Town and will be the only paper-hanging for Sale wh. am of opinion may Answer well. Therefore desire you by all means to get mine well Done and as Cheap as Possible, and if they can make it more beautiful by adding more Birds flying here and there, with Some Landskips at the Bottom, Should like it well. Let the Ground be the same Colour of the pattern. At the Top and Bottom was a narrow Border of about 2 Inches wide wh. would have to mine. About three or four years ago, my friend Francis Wilks, Esq., had a hanging Done in the Same manner but much handsomer, sent over here from Mr. Sam Waldon of this place, made by one Dunbar in Aldermanbury, where no doubt he, or some of his successors may be found. In the other part of these Hangings are Great Variety of Different Sorts of Birds; Peacocks, Macoys, Squirril, Monkys, Fruit and Flowers, &c.

"But a greater Variety in the above mentioned of Mr. Waldron's and Should be fond of having mine done by the Same hand if to be mett with. I design if this pleases me to have two Rooms more done for myself. I Think they are handsomer and Better than Painted hangings Done in Oyle, so I Beg your particular Care in procuring this for me, and that the patterns may be Taken Care of and Removed with my goods."

Just as I am writing this chapter, comes the announcement of the death of my friend, Kate Sanborn, who was the historian in America of "Old-Time Wall Papers." With wonderful patience she persevered year after year in collecting photographs of ancient papers, mostly picture papers and mostly imported, that had hung for generations on the walls of American homes. These she has preserved for all time on the eighty-three plates of the only important book that has ever been published on the subject.

DECORATIVE TEXTILES

Miss Sanborn's enthusiasm for picture wall papers was due to early inspiration. She was born at Hanover, N. H., in a room decorated with scenes from the Bay of Naples, illustrated on Plates 58-62 of her book. As she herself writes:

"Although a native of New Hampshire, I was born at the foot of Mount Vesuvius, and there was a merry dance to the music of mandolin and tambourine round the tomb of Virgil on my natal morn. Some men were fishing, others bringing in the catch; farther on was a picnic party, sentimental youths and maidens eating comfits and dainties to the tender notes of a flute. And old Vesuvius was smoking violently. All this because the room in which I made my début was adorned with a scenic paper."

Other papers illustrated by Miss Sanborn are:

Plates 12, 13, 14, The Cultivation of Tea, a hand-painted Chinese paper imported about 1750. Plates 12, 13, Stencilled papers from Nantucket. Plates 22, 23, Papers with landscape repeats at Clarendon, N. H., and in Salem, Mass. Plate 28, Washington memorial paper. Plate 29, Dorothy Quincy wedding paper, imported for her marriage to John Hancock in 1775, and still hanging on the walls of the north parlour of the Dorothy Quincy house in Quincy, Mass. Plates 34, 35, Pizarro in Peru, in the Ezra Western house at Duxbury, Mass. Plates 36, 37, Tropical Scenes, from the Ham house at Peabody, Mass. Plates 38, 39, On the Bosporus, from a home in Montpelier, Vt. Plates 56, 57, Scenes from Paris. Plates 65-69, The Adventures of Telemachus. Plates 71-76, The Olympic Games, made in France, and imported to Boston about 1800, but never hung. Plates 77-79, The Lady of the Lake, scenes illustrating Scott's famous poem, and still hanging in good condition on the walls of houses in Greenbush, Mass.; Wayland, Mass.; Portsmouth, N. H. Plates 81-83, The Seasons, a grey monotone on the library of Professor Young at Hanover, N. H.

BANDBOXES

Nor should I forget the "little sisters" of wall papers, bandboxes, so many of which were adorned with scenes block-printed on paper. A large collection of these was made by my friend, the late Alexander W. Drake. Many of them bear the names of the wall paper manufacturers who printed them. The most important part of this collection was acquired for the New York Cooper Union Museum.



Plate X WALTER CRANE'S "MACAW"

In many respects the most delightful paper produced by the famous English firm that William Morris founded. Note the strength of the design and the gentleness of the colouration. Walter Crane stands at the head of all modern designers of wall paper, in the opinion of many



Plate XI THE BOSCOREALE FRESCOES FROM POMPEII As set up in the Metropolitan Museum of Art

ANCESTORS OF WALL PAPERS

From the design point of view there are three principal types of wall papers: (1) Picture papers; (2) Pattern papers; (3) Texture papers. The texture papers are those that imitate or suggest the texture of other materials, such as velvets, tapestry, embroidery, satin, damask, leather, wood, stone, plaster, etc. (Plates XVIII, XIX).

From the decorative point of view the ancestors of picture wall papers are not only detached paintings and prints on canvas and wood as well as paper, but also picture tapestries, and especially the paintings and drawings that have been, in all ages from the cave man down, applied direct to walls. The most important examples are the coloured paintings, some flat and some in low relief, that have been preserved on the walls of the mastabas, pyramids and temples of ancient Egypt (as illustrated by the inner walls of the mastaba of Perneb at the Metropolitan Museum of Art); the mural paintings of ancient Rome, which inspired Raphael and Giulio Romano, as well as Robert Adam, Huet and David (as illustrated by the Boscoreale frescoes at the Metropolitan Museum); and the glorious mural frescoes of the Italian Renaissance which have immortalised the names of Botticelli, Ghirlandajo, Mantegna, Da Vinci, Michelangelo and a score of others (as illustrated by Pollaiuolo's Saint Christopher at the Metropolitan Museum of Art).

Vividly do the Boscoreale frescoes show what the ancient Greeks and Romans used instead of wall paper. Buried in the year A. D. 79, in a Roman country house near Pompeii, by the eruption of Vesuvius, these frescoes lay concealed for over 1800 years, until excavated in 1901 and brought to this country in 1903. The richness of the colours is surprising. Dried into the plaster over eighteen hundred years ago, the reds and yellows, greens and blues are still wonderfully alive. The way in which they contrast and blend testifies to the skill of the journeyman mural painter of the period.

The walls of one whole room have been set up at the Metropolitan Museum of Art in what is said to be their original position. The walls are without relief, all the columns and architectural details being painted on flat plaster with forced perspective and forced shadows to give the semblance of form and reality. The room looks much larger than it really is. This is the result of deliberate intention. On every side the eye is met by out-of-door scenes, with distant sky. The illusion is splendid. Those familiar with the famous Alsatian "El

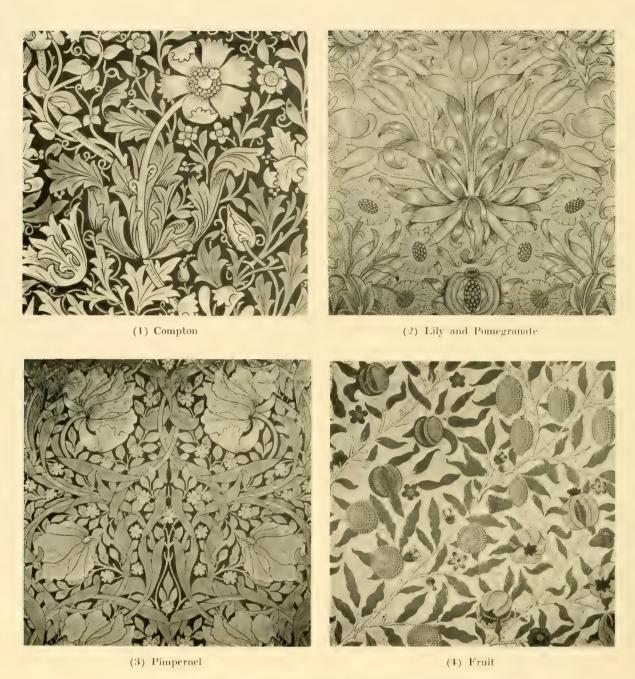


Plate XII FAMOUS PAPERS BY WILLIAM MORRIS

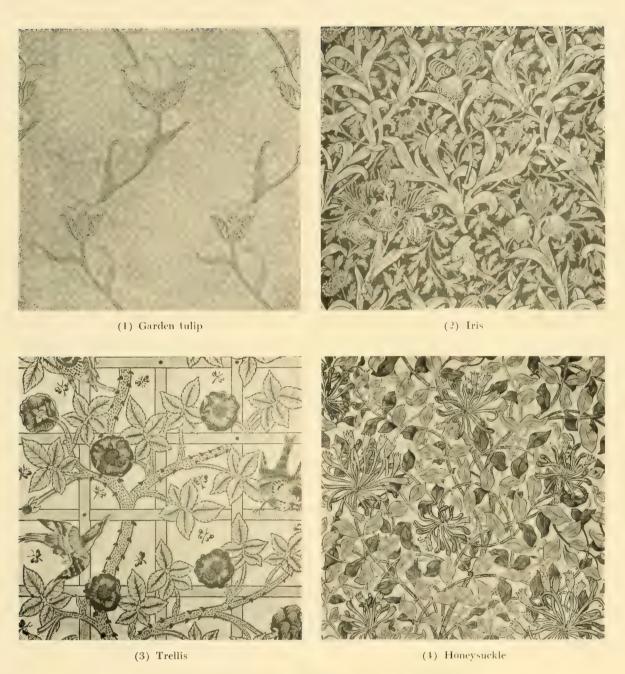


Plate XIII—FAMOUS PAPERS BY WILLIAM MORRIS

DECORATIVE TEXTILES

Dorado" wall paper will have a good mental picture of what I mean.

The architecture pictured in the Boscoreale frescoes is not realistic. In fact, much of it is impossible. The artist has made columns graceful at the expense of strength, and has piled structural masses where they would be theatrically effective. He was avowedly not imitating nature but producing decoration. This is shown not only by the fancifulness of the architecture, but also by the repetition of scenes. Repetition is what separates decoration from the art that imitates or interprets nature. Nature seldom repeats and never exactly. Of ornament and pattern, repetition is the backbone. In repetition, as in most other things, excess is easy—particularly if it is done by machine. Modern wall papers surround us with obtrusive stupidities repeated a thousand times. No wonder that many of the wall paper manufacturers bring out a new set of patterns every year.

In this Boscoreale room, that consists of main room and alcove—the alcove being the part next to the windowed wall—the repetition is sufficient to make ornament without making monotony. The north and south walls of the main room are alike, each consisting of three panels, the outer two of which are the same reversed. That is to say, only two different panels appear on the two walls, panel A and panel B, the former four times and the latter twice.

The symmetry, however, is not exact. The mask and the goddess in the middle panel of the north wall are not the same as the mask and the goddess in the middle panel of the south wall. There is also variety in the masks and the statues of the outer panels and many minor differences, some of which were clearly intentional. As in Oriental rugs and Renaissance tapestries and other examples of genius in ornament, the repetition that brings balance and reduces natural forms to human terms is relieved by happy variety in detail.

The west or windowed wall of the room consists of three panels, the outer two of which are the same, reversed. The middle one shows a bowl of fruit with parrot above. The outer two show a grotto, fountains and bright-coloured birds.

The Boscoreale frescoes would be interesting to reproduce on modern walls, with the brush on canvas or with the block paper.

PATTERN AND TEXTURE PAPERS

Chinese wall papers and those based on them (Plates II, IV) occupy an intermediate position between picture papers and pattern



Plate XIV—FAMOUS PAPERS DESIGNED BY WALTER CRANE
In the upper left corner, Fig and Peacock; in the upper right, Golden Age; in the lower left corner, Wood Notes inspired by Shakespeare's Midsummer Night's Dream; on the right, Peacock

Plate XV AN ANCHENT PAPER REPRODUCED FOR A SALEM, MASSACHUSETTS, MANSION



 Λ piece of the original paper made in Alsace and lung in 1830

e. . . .

A hall in the Ropes Mansion, hung with a modern reproduction of the same paper by the original makers

papers. The absence of accentuated light and shade and of the architectural perspective so pronounced in Classic papers like "Psyche at the Bath" (Plate III, 2) gives Chinese pictures an effect that lessens the illusion and brings them nearer to decoration, even when there is much less repetition than in the Boscoreale frescoes. Also, the Chinese passion for nature and for the pastel colours in nature, contrasts strongly with the Classic preference for architecture and strong colours.

The wall paper and chintz patterns of the last half of the eighteenth century illustrate wonderfully the commingling of the artistic souls of the East and of the West. We have, indeed, many bas-relief effects in grey monotones and duotones which are purely in the Classic vase-style (Plate IX, 2, 3), yet we have even more continued-story scenes done in the Chinese manner but with Classic motifs and details. Striking examples of this mixed style are the patterns of Huet and his school.

In the Empire period and the first half of the nineteenth century, we discover papers approaching nearer to the large illusions of European mural paintings and tapestries, and the Chinese influence disappears from floral patterns like Müller's famous "Roses" (Plate IX, 1), and from verdures (Plate III, 1).

In drawing the distinction between the Chinese and the Classic, we should not exaggerate unduly if we made the statement that Chinese decoration is produced by the elimination of relief and shadow, Classic decoration by repetition and balance. Characteristic of the style of the Italian Renaissance but even more of those of the Louis XVI and Empire periods are diaper patterns with tiny repeats, the very minuteness of which prevents the monotony from being irksome or offensive.

By the middle of the nineteenth century the development of roller printing was producing in chintzes and wall papers the same diminution of motifs that the jacquard attachment was producing in damasks and brocades. Also, the cheaper methods of making paper and the poverty of the world caused by the Napoleonic wars favoured wall papers as compared with chintzes. Most significant of all, the blind and stupid adoration and imitation of ancient Classic had caused artists to neglect decorative art in their yearnings after the supposedly miraculous mysteries of representative art.

Finally came the voice of William Morris, crying in a decorative

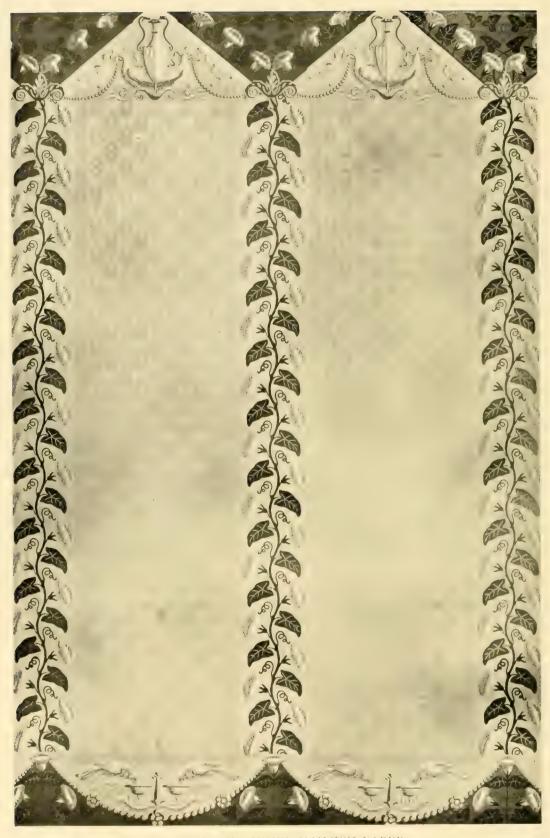


Plate XVI—THE JUMEL MANSION PAPER
A modern American hand-blocked reproduction of the ancient paper that adorned the Guard Room of the Jumel Mansion, New York, at the time when Washington used it as headquarters

desert. He worked himself with the bobbin and with the block, in order to get close to the processes and the techniques appropriate to the materials. He designed wall papers that are still justly in vogue and printed from the original blocks (Plates XII, XIII), and together with Walter Crane (Plates X, XIV), revivified wall paper design in hand-blocked papers so splendidly that the result was apparent even in the machine papers.

Fifteen years ago the wall paper industry in America was in a sad way, and justly. The patterns were mostly bad and badly executed. Wall paper manufacturers and salesmen talked price so vociferously that quality was frequently overlooked. Nearly all of the so-called designers were mere manipulators of pattern and utterly void of inspiration and of art.

Since then there has been a wonderful uplift (Plates XVII, XX). The vagaries of Art Nouveau, which, for a time, hindered the development of American wall papers alarmingly, have been forgotten and from the idiocies of the European Futurists we have remained aloof. Instead of merely rehashing modern European papers our designers are now studying the documents of the past—damasks, brocades, velvets, chintzes, tiles, decorative paintings and tapestries and wall papers—and producing patterns adapted for the comparatively small repeats of roller printing today. Freely during the past ten years have they borrowed from contemporary chintzes and cretonnes, sometimes wisely, but often with a slavish fidelity that encouraged the use on the walls in paper, of the same pattern that in chintz upholstered and draped the furniture and windows, paralysing the occupants of the room with constant bombardment of monotony.

Monotony is, of course, an easy sin for wall paper to commit. It is easy to paste the walls, over with a pattern a thousand times repeated of which even a hundred repetitions are too much. It is easy to make too large and too noticeable a pattern that in miniature is inoffensive or even pleasing. It is easy, in trying to secure hand-blocked or textile effects, to exaggerate the oddities whilst losing the virtues. One can get more pattern for one's money in wall paper than in other material. Consequently, most apartments and houses overwhelm one with the noise of the designs papered on the walls. The dining room moans in dark verdure; the living room screams with a polychrome trellis; the reception room threatens with an exaggerated stripe, and the chambers suffocate with tiresome florals.



Plate XVII—AN AMERICAN HAND-BLOCKED PAPER
The finest wall paper ever made in the United States, containing 120 colours each printed slowly and laboriously by hand

No wonder that many architects and decorators turn with relief to the papers that emphasise texture and minimise pattern, such as the ingrains with their felt-like surface; the grass cloths with their reproduction of the strong line effects of the Japanese originals; the very remarkable imitations of plain and illuminated leathers; the flock papers with their coating of silk or woollen powder reproducing plain and figured velvets; tekko and the other papers that simulate satins and damasks and moirés; the reproductions of verdure tapestries, most of them not in real tapestry but in needlework tapestry texture produced by overprinting with short vertical and horizontal lines; and, last but not least, the imitations of marble and tiles, and plaster, and stone. Especially are the tile effects appropriate for bath rooms, and the Caen stone effects for halls and for connecting rooms that must be "pulled together" with a background that has architectural dignity. (For texture papers, see Plates XVIII and XIX).

Amongst the best of the modern American papers copied from those used in America over a century ago are the ones that hang in the Octagon room of the Jumel Mansion (Plate XVI); the Canton paper, from the Lee Mansion in Marblehead, Mass.; the Cordova paper from the Captain Taylor house in Chelsea, Mass.; the Cervera paper, from the house in New Hampshire where Mrs. Larz Anderson was born; the Stanwood-Mansfield paper, in Chinese Chippendale design from the Mansfield house in Gloucester, Mass.; the Paul Revere paper from the Paul Revere house at 19 North Square, Boston; the papers in the Longfellow birthplace, Portland, Maine.

Papers that everyone should know about are those picturing the flags, shields and banners of the United States and our allies. There is a magnificent one of Old Glory, with red and blue in flock, which contrast richly with the white stars and white alternate stripes that are in plain paper. For indoor display of patriotism, paper flags are not only effective but also inexpensive, especially at the present time when bunting is in such small supply and great demand.

HOW WALL PAPERS ARE MADE

The four principal methods of making wall paper are: (1) with the brush; (2) with brush and stencil; (3) with blocks; (4) with rollers. The brush method, inherited from the Chinese, is seldom employed in Europe or America, for lack of artists having sufficient mechanical dexterity. The stencil method is used principally in the

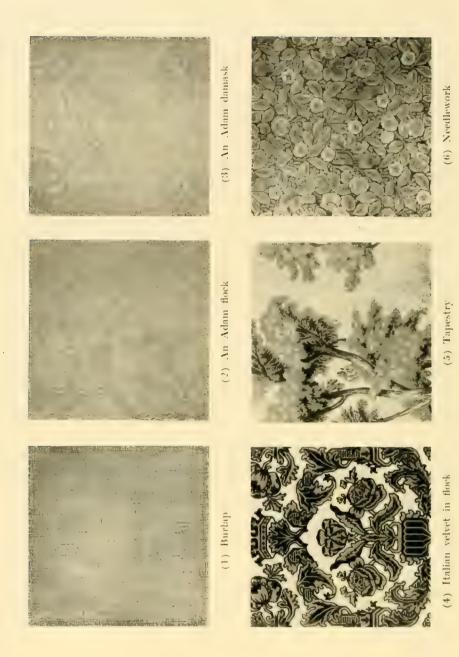


Plate XVIII—AMERICAN WALL PAPERS IMITATING TEXTLIES

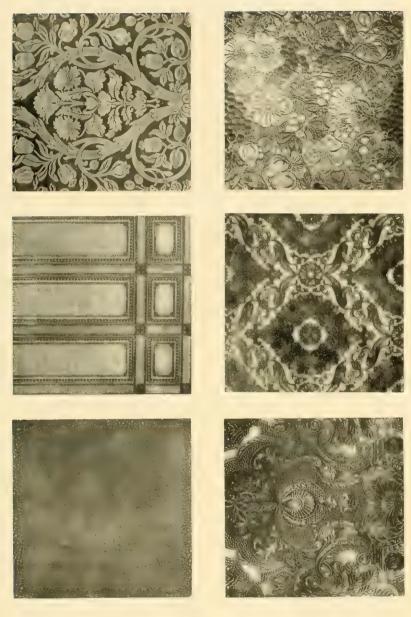


Plate XIX - AMERICAN WALL PAPERS IMITATING LEATHER The one at the upper left-hand corner, plain pattern; the others embossed leathers, blocked and wiped in by hand



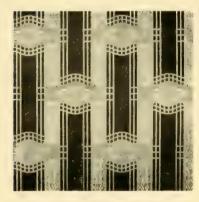
(1) An Italian damask paper



(2) A Louis XV paper stamped in gold



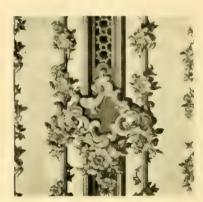
(3) A Chinese floral with brokenrib ground



(1) Based on embossed leather but not in leather colourings



(5) Chinese bamboo panel effect on background



(6) A Rococo paper reproduced from the hall of the Longfellow home, Portland, Maine



(7) Chenonçeau, reproduction of a paper originally printed in Paris, and hung in John Barlow's house, Liberty Street, New York, in 1859



(8) A Rococo paper reproduced from an old English paper in the house of Stephen A. Osborne, East Danvers, Massachusetts, in 1858



(9) Louis XV Shepherdess, reproduced from paper hung in the old Livingston Manor House at Catskill, New York, over 75 years ago

manufacture of picture friezes, many of which are in every way admirable and should be better known than they are. Block printing, which is done entirely by hand, is intermediate in rapidity and effect between brush work and roller work. The blocks are of wood and from 18 to 21 inches square. The design is carved in relief on the surface, sharp lines being produced by copper ribbon and dots by copper pins driven into the wood. There is a separate set of blocks for each colour of the design, and each colour is separately printed and the roll allowed to dry before the next colour is applied. While the rollers used in the machine printing of chintz and cretonnes are of copper with the pattern incised, the rollers used in the machine printing of wall paper are of wood with the pattern in relief. The outlines are formed by copper ribbon driven into the wood, and the body of the design is filled in with felt. The dots are formed with copper pins, as in the hand blocks.

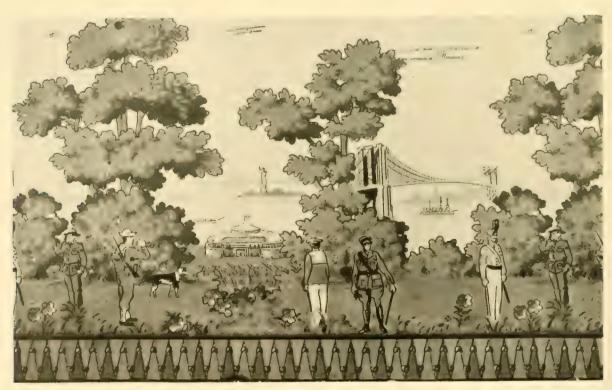
In roller-printed papers, the size of the pattern unit (the repeat) is absolutely limited by the size of the roller (its width and circumference). In block-printed papers, whilst there is theoretically no limit to the size of the design, practically it is limited by the cost of the blocks, which in very large scenic and picture papers run into the hundreds. With the brush, there is no reason for any repeat at all except such as is called for by the laws of good taste.

Machine-printed papers, on account of their very limitations, are safer for the average paperhanger to use. Picture and large-pattern papers are difficult to space and arrange in rooms much cut up by windows and doors and often come out badly at the corners. But even with machine-printed papers it is possible to secure panelled and frieze and crown effects by the use of appliqués, borders and friezes and detached motifs being printed on a separate roll, cut apart with a very ingenious appliqué cutting machine and pasted around, above or over the regular side wall paper. The development of these appliqué papers is of recent date and due principally to an American firm who have made a noteworthy success of "carrying coals to Newcastle;" in other words, of exporting wall papers to London. The same firm's leather papers also deserve especial mention because of their unusual merit (Plate XIX).

With wall papers are very properly grouped those cloths that are specially sized or prepared by different manufacturers for application with paste by paperhangers. Some of them with glazed sur-



(1) City Hall Park, New York



(2) The Statue of Liberty

Plate XXI MODERN PATRIOTIC WALL PAPERS Designed in 1917 by Charles Jeltrup, a French designer working in New York

face are for bath rooms and kitchens, and some are adapted to serve as ground for decorative painting or stencilling. Some emphasise the texture of the basic muslin or canvas or burlap, whilst others add metal effects or imitate the texture of leather or Japanese grass cloth, or are overprinted with small wall paper patterns. The surface effect of these prepared cloths is much softer and more agreeable than that of most plasters and wall papers.

Credit for illustrations: Plates I, IV to VIII, XV, Harry Wearne; Plate II, the Metropolitan Museum of Art; Plates IV, X, A. L. Diament & Co., American representatives of Defossé & Karth; Plates X, XII to XIV, A. E. Bulkeley, American representative of Morris & Company; Plates XVI to XX, M. H. Birge & Sons Co.

CHAPTER XIX

DRAPERY AND FURNITURE TRIMMINGS

GIMPS, GALLOONS, BRAIDS, BORDERS, CORDS, TASSELS, TUFTS AND OTHER UPHOLSTERY AND DRAPERY ORNAMENTS

Trimmings are made-up ornaments applied to costumes as well as to upholstery. The French word is *passementerie*, and the French excel in the creation of them. The French also understand how to use them, and seldom err on the side of "too much" or "too little."

To some pretentious and contentious Americans, trimmings are taboo. They do not regard them as sufficiently "structural." They maintain that whilst self-fringes are legitimate, a sewed-on fringe is insincere and dishonest. In other words, they think in phrases instead of in facts, and trust to memory instead of taste for their decorative decisions.

The growth of the trimming business in New York during the past ten years has been extraordinary. The improvement in designs has also been extraordinary, and has been accompanied by equal improvement in processes of manufacture, especially in dyeing and matching colours. The rampant tassels and fringes that once were admired as "rich and elegant," have long since been removed from the sample lines and are illustrated on Plates IX and X merely to show from what depths we have risen.

The most numerous ancient trimmings that have survived are those made in Egypt from the third to the tenth centuries, and called Coptic, from the native name of the country. These Coptic trimmings are borders and galloons, mostly figured in tapestry weave, made for application on garments, or woven as an integral part of them. Some of the garments are self-fringed and others have tapestry panels framed in bands of long loops of linen wefts, which look more like multiple bullion fringes than like the uncut velvet which they really are. Similar tapestry borders and galloons were also made in Amer-

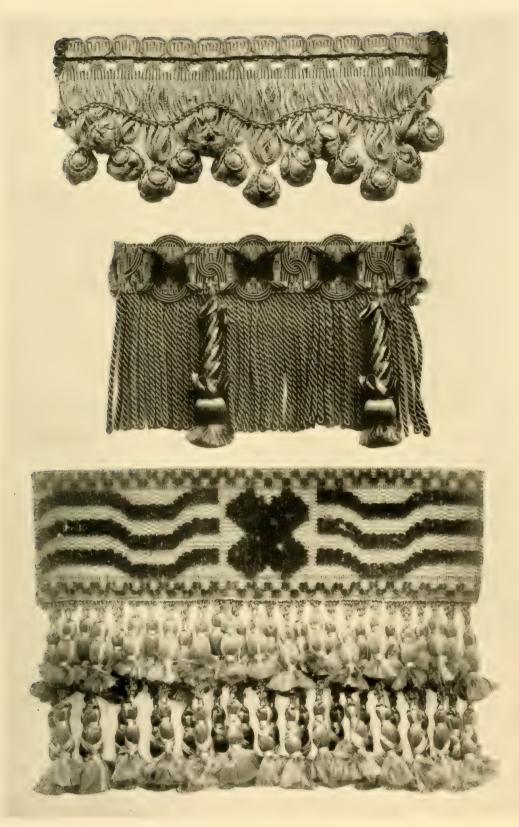
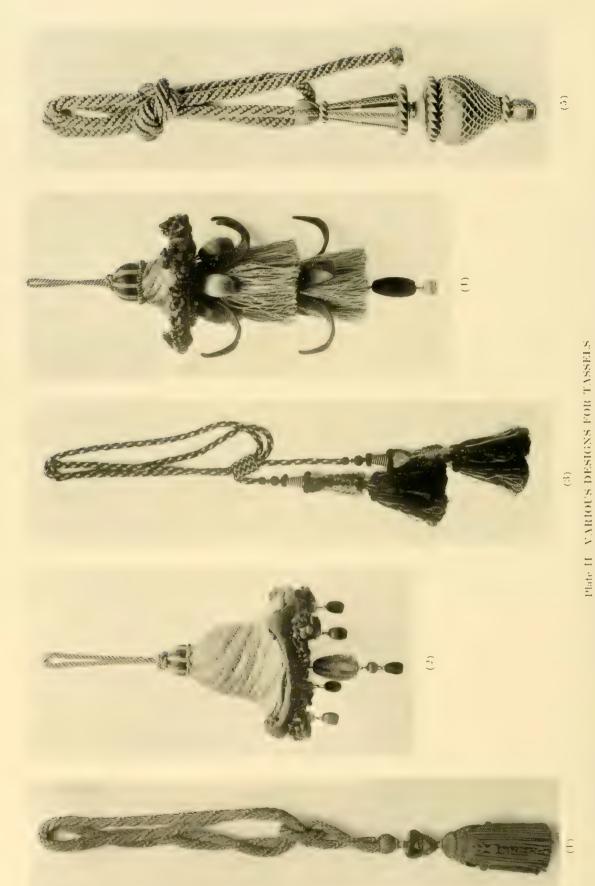


Plate I FRINGES DE LUXE



DRAPERY AND UPHOLSTERY TRIMMINGS

ica centuries ago by the Peruvians, and there are important collections of them in the Metropolitan and other American and European museums, notably in the Natural History Museum of New York. The fringes on the Peruvian examples are noteworthy. One of them shows a double row of pendent triple tassels.

The evidence for trimmings earlier than the Coptic is mainly pictorial and literary. The ancient Assyrian bas-reliefs show trimmings not only on royal robes, but especially on the trappings of the horses, which are quite as elaborate with large tassels as is the ancient Japanese armour displayed at the Metropolitan and other museums. Greek and Roman costumes were less adorned than those of the Orient, but from the Greek vase-paintings we can see clearly that woven galloons were in common use. The Egyptian statues and painted reliefs show us that long before the Assyrians flourished, trimmings were used to make beautiful Egyptian costumes and especially Egyptian head-dresses.

This evidence, however, concerns costume trimmings. Evidence about ancient upholstery and drapery trimmings is conspicuous by its Even in the famous sixth century mosiac portraits of Justinian and Theodora and their courts, still preserved at Ravenna, in Italy, few of the trimmings adorn the draperies. Byzantine paintings and ivories, which give us so many costume tassels and galloons, are comparatively silent about upholstery. Not until we reach the Gothic fifteenth century do the tapestries and the illuminated manuscripts and other paintings picture adequately the kind of fringes and galloons and tassels employed to adorn canopied thrones and beds, and royal tents and carriages. Most of these trimmings were rich with gold and were, of course, used in harmony with the slender vertical effects of the Gothic style until, at the end of the fifteenth century, Renaissance horizontal bands and borders began to introduce classic balance. The best illustration of fifteenth century tassels with which I am acquainted is in one of Jean Foucquet's manuscript miniatures. It shows square velvet pillows carrying a heavy tassel at each corner.

The heyday of trimmings, and the period from which most ancient ones have been preserved, is the Baroque seventeenth century. Towards the end of the sixteenth century people began to get tired of the flatness and straight lines and narrow plain and tasselled fringes of the Renaissance and endeavoured in large curves and bold reliefs to

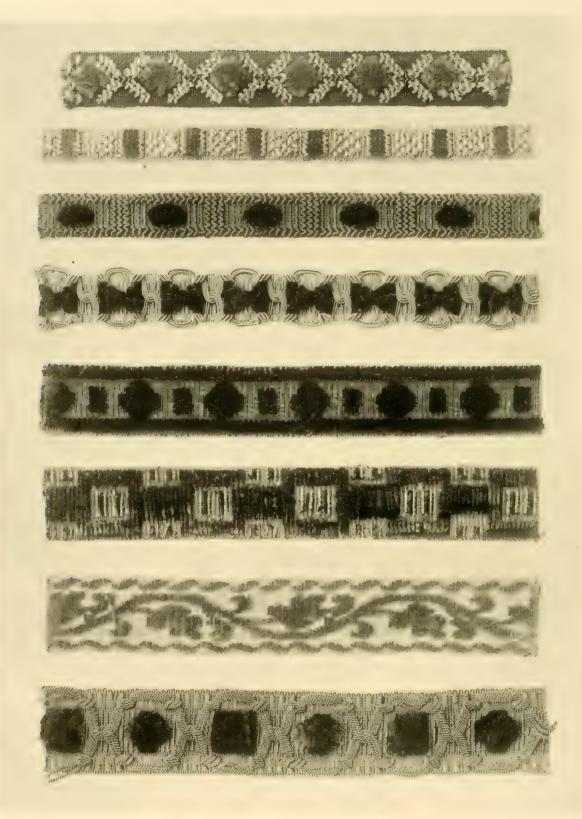


Plate III VELVET FIGURED GIMPS

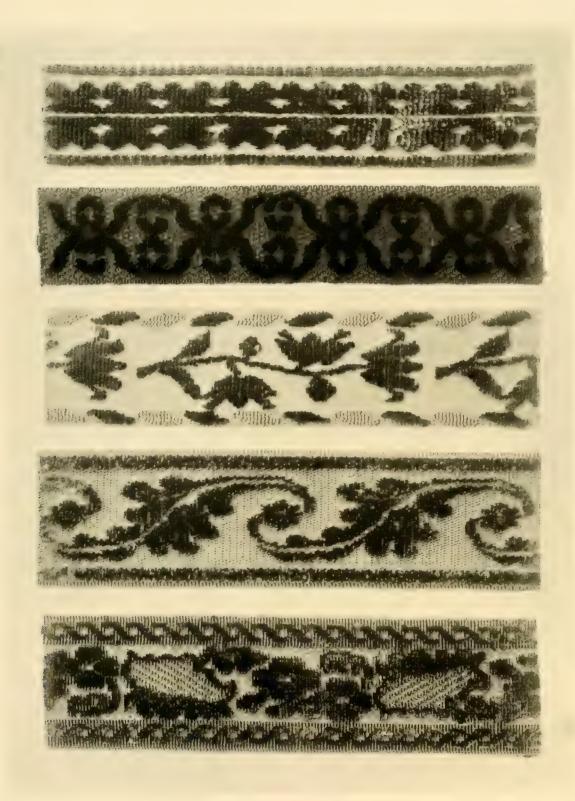


Plate IV -VELVET FIGURED BORDERS

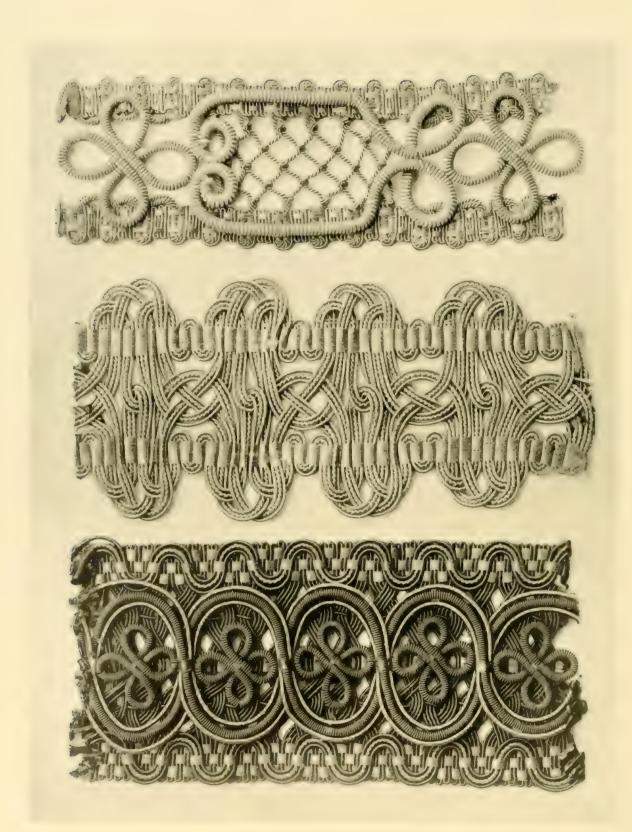


Plate V OPENWORK GIMPS

DRAPERY AND UPHOLSTERY TRIMMINGS

express their idea of the principles that should dominate art. Rubens and Rembrandt are the representative painters, and Bernini and Borromini the representative architects. All owed much to Michelangelo, whose sculptural genius forced the sculptural point of view into the fields of architecture and painting and trimmings, as well as Indeed, the Baroque style of the seventeenth century might justly be described as the sculptural style, distinguished by passion for a wealth of ornament in relief. During the Renaissance the façades of houses had been comparatively flat, but as soon as the Baroque influence became dominant every window had to have a heavy pediment or tabernacle all its own, and buildings fairly bristled with heavy architectural mouldings. The point of view was quite like that of the architect who recently in Country Life in America claimed that wood panelling is the logical covering for the interior walls of a room, "because the mouldings cast a shadow." Naturally, the flat ornament of tapestries and wall papers would be quickly defeated in a shadow contest.

Being the sculptural style par excellence, Baroque is naturally the style of "Tassels Triumphant" and "Fringes Rampant" (Plates IX and X). Not until the last half of the nineteenth century could the world be persuaded again to adopt the monstrosities of the seventeenth. But in adopting them the nineteenth century lost the symmetrical dignity of the originals, and plastered the ancient models over with fussy details and detached gewgaws which the seventeenth century would never have accepted.

In the minds of the vulgar, not to like the style of Louis XIV is a proof of good taste and democratic simplicity. Even more than the Rococo of Louis XV is it disdained by the decorative penny-aliners of the public prints. Yet, as a matter of fact, the style of Louis XIV, though massive and magnificent, is so well balanced and justly proportioned and exquisitely executed as to be a liberal education for those who wish to put themselves en rapport with the best that has been thought and done. Louis XIV fringes and tassels and borders are the result of good taste winnowing out the vices and preserving the virtues of Italian and Flemish Baroque; and Louis XIV trimmings are vastly superior to those of the first half of the seventeenth century.

With the eighteenth century the world of styles received a new orientation. The impulse away from the heavy classicism of Baroque towards nature, and towards Chinese art, introduced the unsymmet-

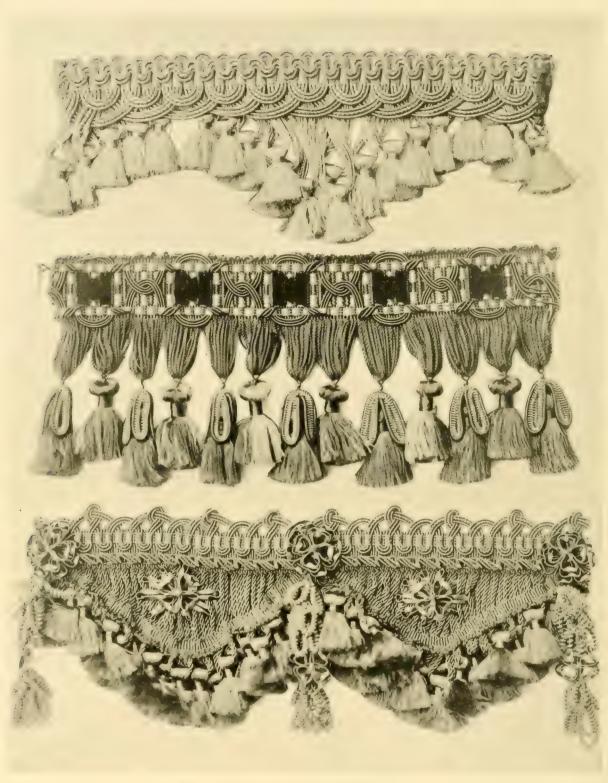


Plate VI TASSEL EDGINGS

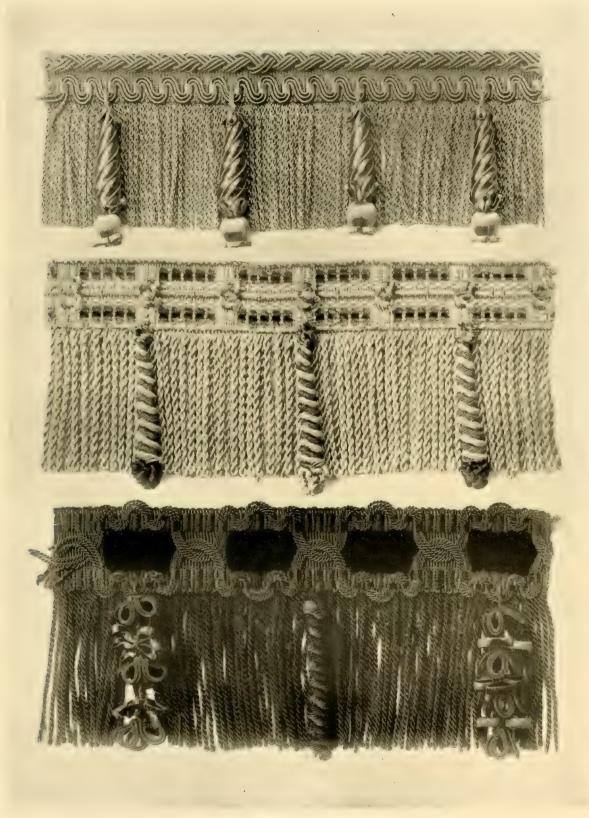


Plate VII BULLION FRINGES

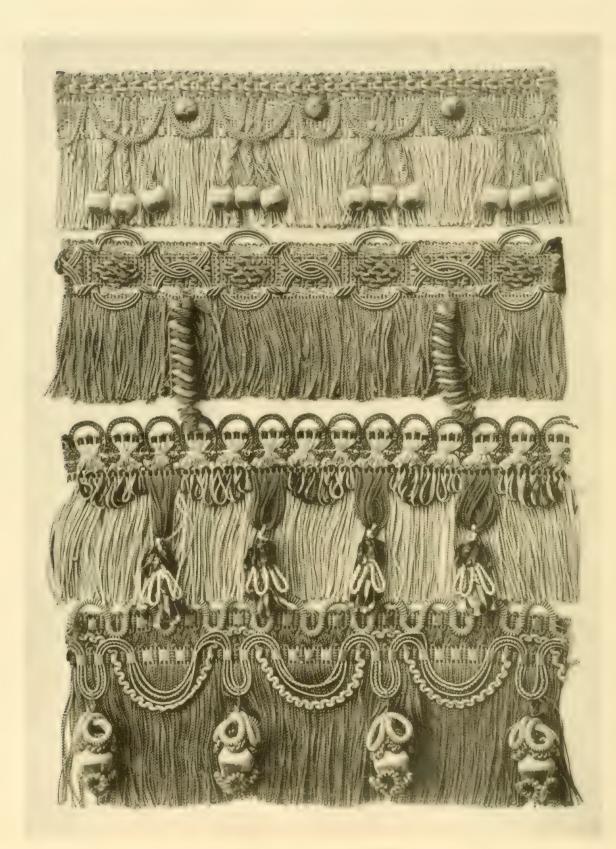


Plate VIII CUT FRINGES

rical forms of Rococo, lowered the relief effects and made them uneven, and, by lessening the scale of decoration, made interiors and furniture more human and more homelike. The trimmings of Louis XV are lighter in weight and in colour, and less regular in shape, than those of Louis XIV.

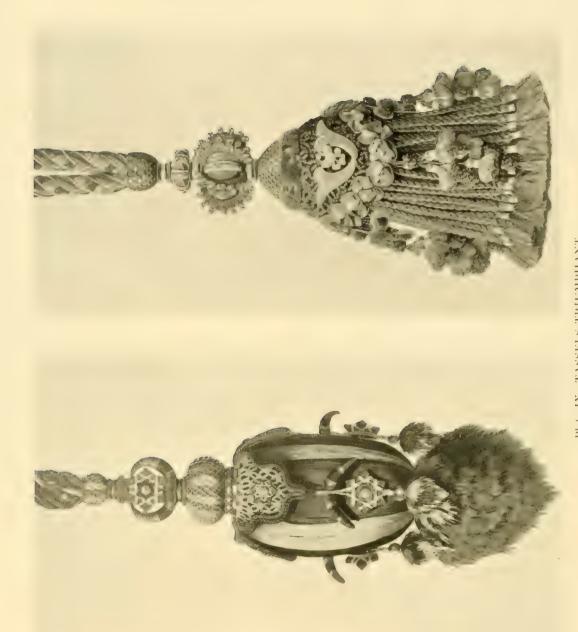
With Louis XVI the world returned to straight lines and to classicism, but retained all the delicate pastel colours and the exquisite grace that under the Chinese influence had developed in France in the reign of Louis XV. Louis XVI trimmings are slender and flat and straight as compared with those that preceded them, and though avowedly copying ancient Classic and Renaissance, are less emphatic than either. But, of course, there are many fringes and tassels which are just as good Louis XVI as they are Renaissance. Louis XVI and the corresponding English style of Adam preferred cut fringes, usually with delicate ornamentation, to the elaborate bullion fringes of the Baroque seventeenth century, and of Régence and Georgian Rococo. Heavy bullion fringes and heavy tassels came into vogue again under the Empire, and under the Second Empire were exaggerated into grotesque perversions of the types illustrated on Plates IX and X.

At this point it is, perhaps, well to explain that a bullion fringe is *uncut* and has twisted loops, so that as compared with a cut fringe it is full of curves, and is heavy-looking. It is the sort of fringe that would naturally be most popular in a Baroque period.

The most important single word in the world of trimmings is gimp. Gimp cord is the dominant feature of the majority of upholstery and drapery trimmings, which without it would lack body. Gimp has the same initial meaning as the French guipure, which is a cord whipped (guipé) or twist-covered with silk. But gimp has introduced bewilderment into the minds of many by broadening its meaning from the twist-covered cords to the ribbons and galloons made by twisting and braiding and sewing and crocheting and weaving them together. Galloons are apt to be made of metal, and the word suggests military costume trimmings even when it falls from upholstery lips. Braid suggests the process of braiding or pleating, though often used for woven ribbons and tapes whose texture resembles that of braid. Very wide gimp braids are often called borders.

The most important machines in a trimming factory are the spin-

<u>=</u>



ning alley and the hand looms, the former for making gimp cords, the latter for making gimp braids. In weaving some of the more complicated gimps, the jacquard attachment is used. Generally, however, treadles lift and depress the slender silk warps which bind and cover the cords, and which sometimes are looped over wires to form cut or uncut velvet figures. The coarse cords of the weft are usually passed back and forth by hand in a small shuttle. In making fringed gimps the weft cords loop over a hook while they are being bound by the warps into the heading. About both the loom and the all-hand processes employed in a trimming factory, there is an infinite variety which is fascinating and even bewildering. The possibilities seem endless.

Endless also are the uses of gimps, not only of the cheap and insignificant and often perishable ones carried in stock in large quantities by upholstery and drapery departments, but also of permanently dyed and artistically conceived and skilfully executed gimps like most of those selected for illustration. It is not only a question of hiding tacks on upholstered furniture and box lambrequins; it is also a question of introducing line and colour effects that are an important part of the composition and that make the chair seem more like a chair, and the lambrequin more like a lambrequin, and the lamp shade more like a lamp shade. Certainly the silk fringe that depends from many large silk shades not only seems appropriate but is also eminently useful from the illumination point of view. Bell cords elaborately tasselled are no longer the sine qua non of a pretentious parlour, even of a hotel parlour, but cords and gimps are freely employed to hold back draped curtains. Pillows, unfortunately, are now seldom tasselled, but silk and metal gimps often finish the seamed edges. The stems of chandeliers are still twisted over with silk cords and often tasselled, sometimes above the lamps, sometimes below. Seldom do we use the elaborate canopies beneath which the beds of our forefathers groaned, yet in the completion of sofas and couches and wall panels we often find trimmings necessary, whilst some of our best architects and decorators bestow much time and trouble upon balls and cords and tassels for the shades and curtains and portières, and even for the mirrors and pictures of fine interiors.

It is much like eating with your knife. If you are merely a rich owner, or an amateur or uneducated decorative salesman, cheap trimmings of weighted silk or mercerised cotton or plain cotton may seem

DECORATIVE TEXTILES

to you good enough to adorn the most elegant homes; but if your knowledge has been extended by the successful experience of others, you will have in trimmings another detail to think about and worry over, and you will endeavour by the study of ancient books and engravings and paintings to supplement the evidence that is accessible in the form of ancient trimmings that are still preserved to be studied. In this way trimmings will acquire for you a deep decorative meaning.

Unfortunately, the collections of trimmings that exist in the Metropolitan Museum of Art and in Cooper Museum are comparatively small and unimportant, whilst those in Dresden and Berlin and Vienna are full of "horrible examples" developed in the nineteenth century from Baroque originals. Furthermore, the literature on the subject is scanty, and the treatment in books bearing broader titles is faulty and inadequate. Invaluable to the trade and consequently to the public would be a careful study of the relation of laces and embroideries to upholstery and drapery trimmings, furnishing as they have so many motifs that are still employed by the makers of gimps. Just as cutwork in Italy developed into full-fledged needlepoint lace, so lace insertions and edgings and embroidered and woven borders and knotted and other self-fringes were thickened and strengthened with gimps into trimmings easy of application, specialised for the use to which they are put, and costing from fifty cents to fifty dollars a yard.

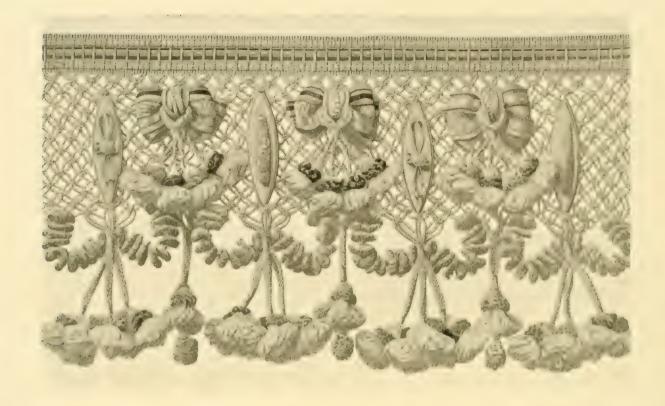
Plate I shows three elaborate fringes of unusual excellence. The upper is of golden yellow silk figured with green and black, for application on light-weight fabrics. The middle one, for damasks and brocades, has a heading of gimp lattice work figured with velvet, and a bullion skirt with hangers of silk-covered flat copper wire. The bottom one is a heavy fringe for velvets, with heading of red velvet on gold warp ground, and skirt of tassels strung one above another. It is interesting to note that the weave of loom-made gimp braids tends to produce rep grounds.

Plate II shows a group: (1) a curtain loop; (3) a flat silk-twisted skirt with tassel ends hung by two cords from a cross bar; (2) and (4) show two Chinese tassels of American design, one constructed on a wooden, the other on a plaster form; (5) a Venetian tassel. Plate III illustrates velvet figured gimps; Plate IV, velvet figured borders; Plate V, openwork gimps; Plate VI, tassel edgings; Plate VII, bullion fringes; Plate VIII, cut fringes.

Plate XI shows fringes from the collection of the ancient English decorative firm of Morant, who, it is said, never sold a sample and for many years confined their business to reproductions from their ancient sample line: No. 1, in red silk with ball and vellum fancy hangers; No. 2, the reverse of a red and gold spaced fringe with running tied trellis; No. 3, in red and gold twist, shaped and tufted; No. 4, in cream terra cotta, with knotted tufts; No. 5, in red, with a gold twist trellis front; No. 6, a red silk galloon, with velvet figures, tufted top edging and tufted fringe crocheted and tufted; No. 7, in cream and rose, red and green, trellised and tufted; No. 8, a green fringe, shaped and tufted.

In the introduction to the catalogue of the Morant collection of velvets, damasks, brocades, etc., M. Jourdain, the well-known English writer on embroidery, lets fall the following remarks anent trimmings:

The stools at Knole, besides the upholstered seat, have the framework of wood tightly covered with velvet, and the feet trimmed with a short tufted fringe. One of the Knole X chairs shows the characteristic fringe with a trellis heading. The other X chair has arms, seat and stretcher ornamented with a deep fringe, fastened by large gilt nails, whilst a short tufted fringe finishes the seams of cushions, arms and seats. The Elizabethan fringes were straight; also those of James I and Charles I, but shorter in the latter reign. Handsome fringes are characteristic of Jacobean upholstery, extremely thick and of twisted silk, frequently with headings of figured velvet and knotting. Full tasselled fringes came in with the Restoration; the short-stranded tassels were carried around the top and sides of the tall padded backs coming into use, whilst the back and chair seat have the hanging fringe, which is often caught up in festoons. In the reign of William and Mary a flat galloon often took the place of the full fringe and eventually displaced it, and this galloon was used to form panels upon the upholstery, which was often of two colours of velvet, with the galloon between. Gold fringes were frequently used in great houses. During the Queen Anne period the movable upholstered seat was sunk, and therefore nails, galloons and braids became unnecessary features. In 1756 Mrs. Delany writes that "Lady Hillsborough has a very good house furnished all with yellow damask with an open border of burnished silver that edges all the hangings." Hepplewhite, in the last half of the eighteenth century, says that leather seats and backs



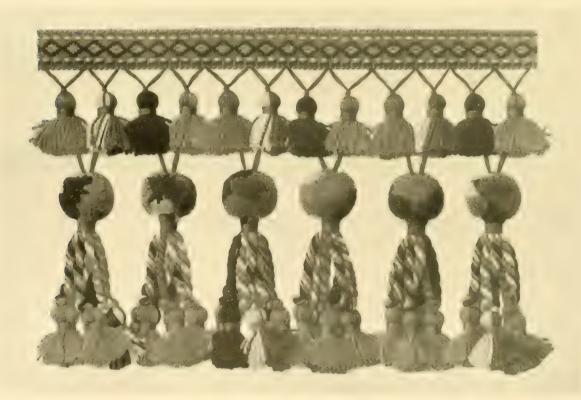
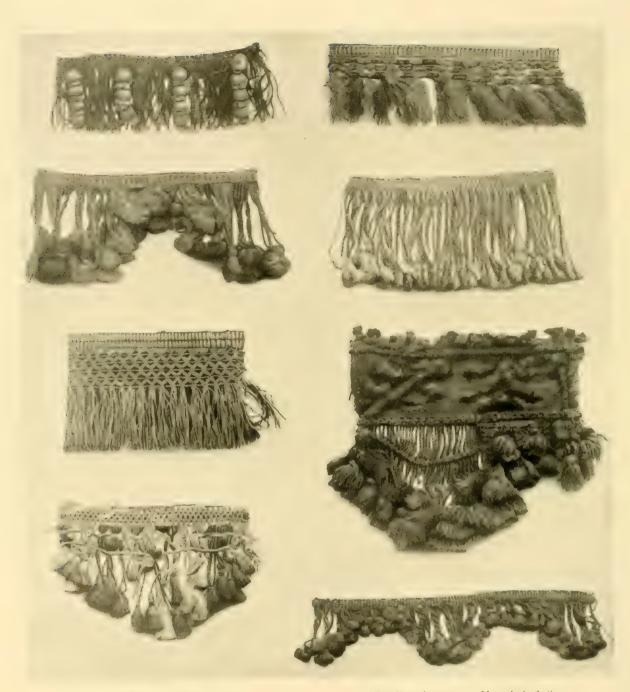


Plate X FRINGES RAMPANT These were once greatly admired

should be tied down with tassels of silk or thread. A bed at Harewood, of about 1774, shows the drapery of the deep valance weighted with its heavy straight fringe, and also the cords with large tassels, which were a feature of the upholstery of the period. A second bed in the same house, which was designed by Robert Adam, has two valances of velvet: a plain upper one, scalloped and fringed and hung at every lap with heavy tassels, and a lower draped valance caught up in the centre by cord and tassels, as in the window draperies of Sheraton's plan of a drawing room (1793). Sheraton's book also shows several other similar arrangements of festoons, heavy fringes, cords and tassels. During the Empire period in England, the chair back and seat were stuffed and braids and borders framed the cushion. Braids were used to hide the nails, and ball fringe was much used.

Plate XII shows two interior views from the residence of James Deering, at Miami, Florida, planned and decorated by Paul Chalfin. I introduce them because this residence represents the best that has been accomplished in original trimmings on this side of the Atlantic. Inspired by familiarity with French trimmings, ancient and modern, Mr. Chalfin, with the enthusiastic co-operation of an American manufacturer, created scores of fringes and tassels and galloons and edgings that adequately finish furniture and draperies of surpassing merit. Especially are the colour effects noteworthy. It goes almost without saying that a man of Mr. Chalfin's experience and training, which are none the less practical because backgrounded by scholarship and travel, would employ gimps and braids and fringes effectively to accentuate the outlines of damask wall panels, silk covers and spreads, valances and side curtains. But he has done more than this; without losing any of the desired line and pattern effects, he has so composed the colours of his trimmings, and so contrasted and blended them with the colours of the surfaces they adorn, that the result is colour harmony as vivacious as it is complete. Let those who will lean on the charts fathered or grandfathered by Chevreul; Mr. Chalfin has proved in the actual materials that for matching colours most of the so-called chromatic laws end where good taste begins.

Amongst the numerous trimmings in the Louis XVI Chinese room illustrated on Plate XII, the two varieties of Chinese tassels are prominent. These two tassels, one shaped over a plaster, the other over a wooden model, and illustrated in detail on Plate II, are, of course, totally unlike any tassels ever conceived by the Chinese them-



Reading from top: Nos. 1, 3, 5, 7

Reading from top: Nos. 2, 4, 6, 8

Plate XI—FRINGES FROM THE MORANT COLLECTION

selves, who like them long and slender and cut; but they do most admirably fit into Europeanised Chinoiserie of the type that dominated France and England in the eighteenth century. The shape of this tassel is based on the keynote of Chinese architecture, the roof, derived from the ancient square tents with centre and corner posts, which in China preceded more nearly permanent buildings of wood and tiles. The oval pendants complete this idea admirably.

The other interior on Plate XII, built around an ancient iron bed, and rhyming with Louis XV rather than Louis XVI, is free from Chinese suggestion but trimmed with equal completeness. The embroidered bell pull and its tassel are ancient, though they agitate the lover of modern electric candles; and the painted satin that forms the ground of the bed draperies is also ancient; but the other fabrics and all the trimmings were made in America. The tassels on the platform spread are elaborate and beautiful. The large rosettes on the pulls that hold the bed curtains are intricate with colour which picks out and gives a thrill to the faded tones of the adjacent painted pattern. The numerous fringes speak for themselves, even though reproduced on such a small scale, and without colour. Visible, too, in the illustrations are the tassels and other trimmings of the window draperies, and the gimps that adorn the skirt of the bed; but the tiny tufts that supplement the edging of the net over-spread hardly show at all, though significant, even important, in the colour scheme of the bed as a whole.

Perhaps the most interesting, at any rate the most generous, use of tassels in this residence is in the room where they hang from trellised cords to form the valance of the window draperies, which down below they tie back in pairs, whilst from the lighting fixtures of the ceiling they depend beneath each candle and the centre.

Amongst books on the subject of trimmings the most pretentious are two portfolios published, one in Dresden, the other in Austria, and both illustrating the taste of twenty or thirty years ago. The German one is entitled "Posamenten für Möbel und Dekorationen," and was published by the Dresden "Zeitschrift für Posamenten-Industrie." The Austrian one was published by S. O. Czeiger. Volume III of Emanuel Bocher's "Manuel des travaux à l'aiguille" is devoted to tassels (glands); and Volume IV to cords, braids and knots (cordes, tresses, nœuds), with detailed description and illustrations of how to make them. The small collection of trimmings in the





Plate XII—BEDROOMS IN THE RESIDENCE OF JAMES DEFRING,
AT MIAMI, FLORIDA
Especial attention was paid to the trinmings, many of the details being originally designed for the purpose, notably the Chinese tassels (illustrated on Plate II) on the camppy of the Louis XVI Chinese room on the right Architects: F. Burrall Hoffman, Jr., and Paul Chalfin

Ξ

Nüremberg Museum is listed in the catalogue of "Stichereien, spitzen und pozamentier-arbeiten." The article on "La Passementerie," by P. Verneuil in Volume XXIII (1908) of the magazine "Art et Décoration," treats the archæology of the subject interestingly, and then illustrates and describes ultra-modern trimmings. In the Connoisseur for 1909 there is a short article on Spanish trimmings entitled "Puntas and Passementeries." Macquoid, in his monumental work on English furniture, illustrates many gimps and fringes as they appear in actual use on ancient chairs and couches, and, of course, the drapery portfolios of Lenoir and many others show trimmings as part of curtains, portières and lambrequins.

The author is indebted for Plates I to VIII and XII to Edward Maag; for Plates IX and X to S. O. Czeiger; for Plate XI to the Morant collection.

CHAPTER XX

TOOLED AND ILLUMINATED LEATHERS

Texture is Latin for weave. Texture means surface qualities as distinguished from colour and form. Texture is only skin deep.

Texture means those qualities that in textiles are pre-eminent, reaching perfection in damasks and brocades and velvets and tapestries. It is only by analogy that we speak of the texture of wood and marble and metal. Compared with textiles, wood and marble and metal have little textire.

But with leather it is different. Leather seems even to surpass the textiles on their own ground. Leather, when shaped with dies and stippled and carved with punches and chisels, and then illuminated in colours, especially with gold and other rich lacquers applied upon a ground of silver leaf, acquires a texture that in luminosity outshines the surface of damask and velvet, and in richness does not pale before tapestry or brocade.

Of course, there are leathers and leathers. Some of them are mere painted imitations of the reality. Some of them have no texture at all, and might just as well be painted canvas or paper, like the Japanese and wall paper leathers.

But with the imitations, near or remote, this account has nothing to do. All of the leathers illustrated are *real leathers*, made rich in texture by actual tooling and illumination.

Extraordinarily rich and beautiful is the leather illustrated in colour on Plate I, from the house of Titian, the famous Venetian painter of the sixteenth century. This piece of leather was brought to this country by the late Henry G. Marquand, president of the board of trustees of the Metropolitan Museum of Art, to whom was due the attempt to develop in America the art of tooling and illuminating leather in the ancient fashion, an attempt made successful by the co-operation of the great architect and decorator, Stanford White.



Plate I -ANCIENT ITALIAN LEATHER FROM THE HOUSE OF TITIAN, BROUGHT TO THIS COUNTRY BY HENRY G. MARQUAND.

DECORATIVE TEXTILES

The texture of this piece of leather is a revelation to those who know only leathers of modern inspiration. The design in gold has been exalted against the flat, blue ground marvellously by the tooled-in lines and tiny circles and raised outlines. In nothing but leather, and in nothing but yellow and blue lacquers on silvered ground, could such colour and such texture be produced. It rivals and surpasses the texture of the richest brocades and the most sumptuous tapestries. It is one of those decorative documents that are an immediate and complete answer to those who ignorantly and impertinently ask: "Why seek inspiration in the past?"

Plate VI shows, also in colour, another piece of sixteenth century Italian tooled and illuminated leather. Very remote this from the rough oxhides and tinted moroccos attached to the seats of much modern furniture. Here we have the innate possibilities of leather taken advantage of to the utmost. The illustration shows the upper part of a leather pilaster, the lower part of which is also preserved. The spiral bands of the column are differentiated from each other even more marvellously than in the original marble that was the inspiration of the leather. The colours are a liberal education in polychrome composition: gold outlined in black for the column, with red background between it and the straight, narrow border; gold on green for the capital at the top and for the horizontal band of acanthus leaves below; red lined with black circles for the jewel in the centre of the leaf at the very top: all possessing the peculiar toned and crackled lustre that time produces on leather that has been lacquered in colour on silver. Uniquely beautiful would be a mantel panelled or a room framed in leather columns like this.

Of course the leather industry is an ancient one. Shaggy hides were used for coats and blankets ages long before the development of the loom. Dressed and dyed and painted and beaded leather belts and clothing and tents and draperies are likely to have long preceded woven ones. But the designs show that tooled and illuminated leathers were the descendants rather than the ancestors of elaborate weaves, and were in fact at first an attempt to reproduce the glories of gold damasks and brocades.

Unfortunately the monk Theophilus in the twelfth century did not make the tooling and illuminating of leather one of his *diversarum* artium. But he did, in Chapter XIX of Book I, show how to prepare leather for illumination by painting it with gypsum whiting.



Plate II- GEORGIAN LEATHER WITH RED FLOCK GROUND

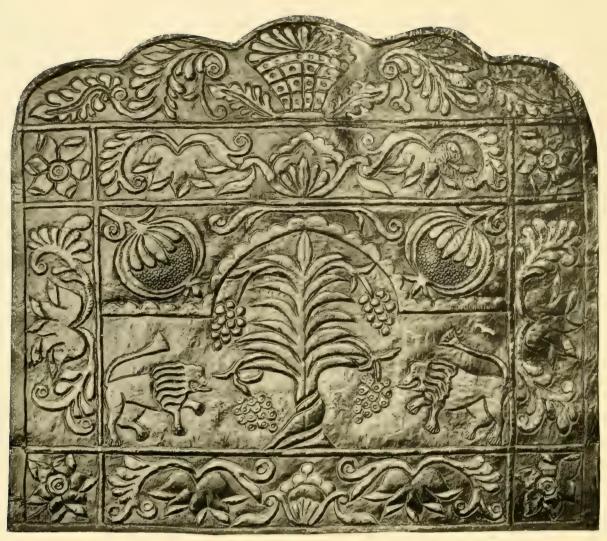


Plate III ANCIENT PORTUGUESE CHAIR-BACK IN CHISELLED LEATHER Showing the tree design with doublet lions



Plate 4V EIGHTEENTH CENTURY SPANISH LEATHER PANEL.
In gold and blue on green

The first part of Europe to acquire a reputation for decorated leathers was Spain. Spain is just as much the home of leather as China of silk, Egypt of linen, India of cotton, and Flanders of wool. Yet, oddly enough, guadamacis and guadamaciles, the common Spanish names for figured leathers, are not Spanish but Moorish. They are derived from the name of the city of Ghadames, in the Sahara, which is still an important leather market, and which a twelfth century Arabic writer speaks of as "Ghadames, the city that ghadamesian leather comes from."

In 1197 Alfonso the Ninth, in presenting the town of Castro de los Judios to Leon Cathedral, fixed the taxes to be paid at two hundred sueldos, a fine hide, and two guadamacis. These taxes had existed since the reign of Ferdinand the First, that is to say since the middle of the eleventh century. So that the common belief in Spain that guadamacileria, or the art of decorating leather, crossed from Mohammedan Africa into Spain in the early Middle Ages seems to have a very definite basis in fact.

However, none of the eleventh or twelfth century Spanish leathers are known to be in existence, so that the details of the workmanship must be left in obscurity. But at the Cluny Museum there are two small coffers, dating from the fourteenth century, adorned with animals cut out of leather and applied on velvet. Ramirez de Arellano, in a bulletin of the Spanish Sociedad de Excursiones, says that the earliest *guadamacileros* were accustomed to imitate brocade upon their leathers, employing beaten silver together with the colours red, green, blue, black, white and carmine, applied in oils, or sometimes (contrary to law) in tempera. The guadamacileros tanned the hides themselves, stamping the pattern from a wooden mould, and then engraving on the leathers with chisels and punches. The hides were those of rams. The spaces between the ornament were sometimes left natural, but usually coloured red or blue. Gold in the place of silver is said to have been first introduced between 1529 and 1543. It was applied as follows:

The guadamacileros smeared with oil the parts they wished to be figured in raised or sunk relief, and then imposed the gold leaf. Upon this they applied heated iron or copper moulds and stamped the pattern. The moulds required to be moderately hot, because if overheated they burned the hide, and if not hot enough the gold was not permanent. The superfluous gold was wiped away with lint.



Plate V - ANCIENT SPANISH LEATHER SHOWING LARGE POMEGRANATES FRAMED IN ZIGZAG HALO

The sixteenth century Ordinances of Cordova tell us much about the industry. They provided that every applicant for a license as quadamacilero must prove himself, in presence of the examiners, able to mix his colours and design with them; and to make a canopy with fringe, as well as "a cushion of any size or style that were demanded of him; nor shall he explain merely by word of mouth the making of the same, but make it with his very hands in whatsoever house or place shall be appointed by the mayor and the overseers of the craft aforesaid."

It was also provided by these Ordinances that the pieces of leather were to be dyed, not with Brazil-wood, but with madder, and that the size, whether the hide was silvered or painted, was to be strictly uniform, namely, "the size of the primitive mould," or "three-quarters of a yard in length by two-thirds of a yard, all but one inch, in width." The Ordinances of 1567 established the penalty of death for every guadamacilero who should seek in silvering his wares to palm off tin for silver.

These leathers were used, not only as hangings for the walls, and as carpets for the floors of palaces and castles, but also as table covers, counterpanes, bed and window and door draperies, cushion covers and pillow tops, and as upholstery for the seats and backs of chairs and benches and travelling litters.

The ancient romantic poem of that characteristically Spanish hero, the eleventh century Cid Campeador, tells us that the two chests with which he deceived the Jewish money lenders, Rachel and Vidas, were covered with *guadamacis*. As the poem reads:

"With your advice I wish to build two chests,
Filling them with sand that they may be very heavy,
Covered with guadamacis and well locked,
The guadamacis red and the locks well gilded."

However, the chest preserved at Burgos as one of these "coffers of the Cid," in which the archives and other sacred treasures of the cathedral have been deposited for many centuries, and which undoubtedly dates from about the lifetime of the Cid, is not covered with leather.

At the beginning of the seventeenth century, Cervantes, the author of Don Quixote, introduces a *guadamaci* into his play entitled Viejo Zelozo:

"Enters Hortigosa carrying a guadamaci and in the skins of the

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four corners should be painted Rodamonte, Mandricardo, Rugero and Gradaso (from Boriardo's Orlando Innamorato and Ariosto's Orlando Furioso). Rodamonte should have her face veiled.

"Hortigosa—Lord of my soul, moved and impelled by the great fame of the great charity of Your Grace, I have had the boldness to come and supplicate Your Grace to do me a great mercy, charity, alms and good works, by buying this guadamaci. Just see how fine it looks. The pictures seem almost alive."

This guadamaci of Cervantes was apparently much like the seven now in the Cluny Museum, which were installed in a house at Rouen at the beginning of the seventeenth century, and were described by M. de la Quérière in 1830, in his "Recherches sur le cuir doré, anciennement appelé or basané." These guadamacis, which the spelling of the names would indicate as of Spanish origin, picture Rome and the heroes of Rome, Scævola, Cocles, Torquatus, Calpurnius, Curtius (Curcio) and Manlius, on panels six feet seven inches high by three feet four inches wide. The background is in gold stippled with tiny triangles, and the figures with their clothing, arms and armour, and other accessories have all been patterned with irons of various figures. The rest is painted like an ordinary picture. No part shows the stamped impression of a block. Especially noble is the figure of Rome, with the attributes of Pallas, surrounded by military trophies, and with the wolf at her feet nursing the divine twins. Of Spanish seventeenth century guadamaciles, the South Kensington Museum has an interesting collection ornamented with flowers, and foliage, birds, cupids, pomegranates, on green, white, blue and gold grounds.

The first European city to acquire a special reputation for leather was Cordova. It was so far ahead of Seville, Barcelona, Ciudad Real, Valladolid and the others, that their decorative leathers also were known throughout the world as cueros de Cordoba (Cordova leathers), or cordovanes. Ambrosio de Morales wrote in the sixteenth century: "So many guadamacis are made in Cordoba that in this craft no other capital can compare with her; and in such quantities that they supply all Europe and the Indies. This enriches Cordoba and also beautifies her, for the gilded, wrought and painted leathers being fixed upon large boards and placed in the sun in order to be dried, by reason of their splendour and variety make her principal streets right fair to look upon."

On August 26, 1567, before the mayor of Cordova and the two



Plate VI TWISTED COLUMN WITH CAPITAL IN ANCIENT ITALIAN TOOLED AND ILLUMINATED LEATHER OF THE SIXTEENTH CENTURY



Plate VII—ANTIQUE CHINESE GEORGIAN SCREEN

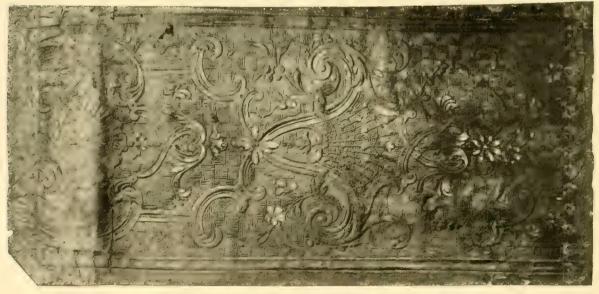


Plate VIII - ILLUMINATED LEATHER OF THE FRENCH RÉGENCE

inspectors of the trade, Pedro de Blancas was officially examined and approved in "cutting, working and completing a *guadamaci* of red damask with gold and silver borders on a green field, and a cushion with green and crimson decoration, faced with silver brocade."

Halls in the sixteenth century in Spain were often embellished by surrounding them with arches wrought of leather in relief and superposed on leather. As a rule the arches were gilt and silvered and rested on pilasters or columns (compare Plate VI). When pilasters were used, their centres would be ornamented with Italian devices such as flowers, trophies, cameos and foliage. Landscapes with a far horizon and no figures, known as boscaje or pintura verde, were painted on the spaces between the arches, so that the general effect was that of a pavilion with arches on all sides, displaying everywhere a wide expanse of fertile country.

Especially in Spanish churches and cathedrals in the sixteenth century were *quadamaciles* used as tapestry and carpets, also sometimes as altar frontals like the one that hangs in the chapel of San Isidro in Palencia cathedral, and in at least one instance as the crown for an image of the Virgin.

The names of more than forty of the old Cordova guadamacileros have been preserved. Four of them made a contract in 1557 to prepare cut and painted guadamaciles for a palace at Rome. In 1587, two of them, together with two painters of Cordova, contracted to make a number of guadamacis for the Duke of Arcos, the guadamacileros receiving three reales for each piece, and the painters two and a half reales, the money paid by instalments as the work proceeded.

In Venice the art of gilding leather was highly developed in the sixteenth century, and the patterns are similar to those of the textiles. A splendid example is one illustrated in colour by Francis Lenygon in the Art Journal in 1911. Fioravanti, in 1564, writes that "all important people are now interested in the work, and it is the height of fashion in Rome, Naples and Bologna." Montaigne says that at Rome rooms are ordinarily better furnished than in Paris, especially as the walls are hung with a great deal of gilt leather. Mission, travelling in Italy at the beginning of the eighteenth century, notices the gilt leather hangings in the houses of the nobility and wealthy citizens of Venice. During the seventeenth century there were seventyone shops in Venice engaged in the business, and the makers of

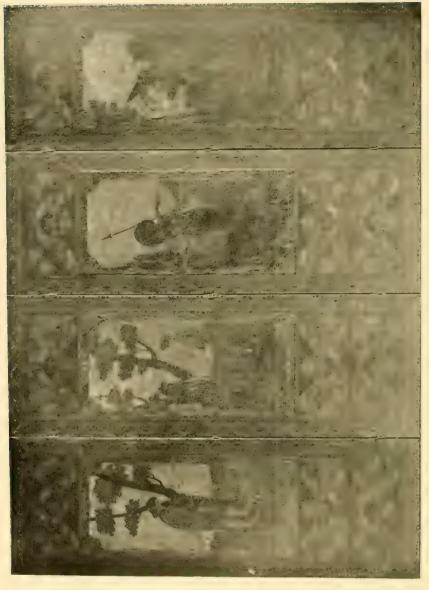


Plate IX ANCIENT SPANISH PICTURE PANELS ON LEATHER From Avignon, framed in modern border

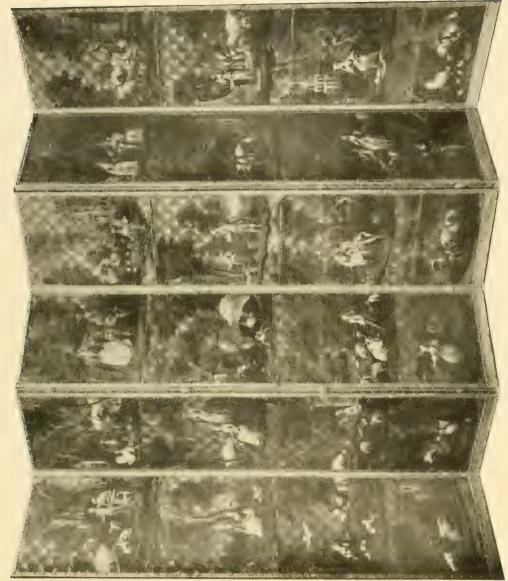


Plate X-LOUIS XVI LEATHER SCREEN NOW AT BILTMORE

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DECORATIVE TEXTILES

cuoridoro formed an important branch of the guild of painters, but during the eighteenth century the number of shops dwindled to four.

Long before Italy and Flanders and France and England began to copy the Spanish guadamaciles, they had their own leather industries, and the leather trunks, chests, coffers, cases, sheaths, bottles, saddles, chair seats and backs for the nobility were often made of cuir bouilli, stamped and tooled and painted in gold and polychrome, and of the most exquisite workmanship. Indeed, leathers in the Middle Ages had an importance relatively much greater than ever since, in spite of the wonderful development in the sixteenth century in Italy and the Netherlands, as well as in Spain, of gilded leathers of the guadamaci variety. Nor did the development of tapestries in France and Flanders, in the fourteenth century, and the extraordinary vogue of tapestries during the fifteenth and sixteenth centuries, seem at all to hinder the increasing use of leather on walls and floors.

An extraordinary assemblage of mediæval European leathers was that of the famous Spitzer collection, catalogued with rare wisdom, by Alfred Darcel, in 1891. With regard to the phrase cuir bouilli (literally "boiled leather") M. Darcel shows that it is descriptive of the process that made heavy leathers ready for stamping and tooling, soft at first and growing hard with time. Savary's Dictionnaire du Commerce, published in 1748, says of cuir bouilli: "It is a strong leather that has been boiled in wax mixed with certain gums, resins or sizes, which are understood only by those who use them, and which they keep secret." The phrase is one employed particularly by makers of sheaths and cases and bottles, etc. The statutes of Paris of 1560, say that "no master of said trade of sheath maker shall make bottles of leather except of cow or ox leather, because other leather is not suitable and said bottles shall be boiled in new wax and none other."

Amongst the most remarkable of the seventy-five pieces of leather work in the Spitzer collection is an Italian cross case, eighteen by six inches, of the early fourteenth century. It is made of pieces of black leather engraved and stamped and sewed together. The ornamentation consists of maple leaves and spiral stems framing a unicorn, dragons, a deer, a hare, a boar and birds. On the sides and top, thrice repeated, is a coat-of-arms, that of the Aldobrandini, surmounted by mitre and crozier. An Italian fourteenth century case for an ivory diptych is eleven by nine inches, and in brown leather,

stamped, painted and gilded. Amongst the painted ornaments are a dog, a rabbit, birds, swans, etc., vivaciously modelled and standing out boldly against a ground engraved in spirals. An Italian book box of the fifteenth century is delightfully adorned with a large eagle and rinceaux, and has silver lock and hinges in the shape of double fleurde-lis. A Spanish hunting bottle of the sixteenth century, ten inches high by eight wide, by four and one-half thick, bears characteristic arabesques in orange, brown, black and white leather, stitched on to brownish-red ground. Besides the main mouth of the bottle above, there is a tiny spout for pouring, at the side. An Italian bookcase, of the end of the fifteenth century, nine inches by seven, bears the arms of the Duke of Milan and the initials of the Duke G. M. most precious Spanish wooden cabinet of the sixteenth century, twenty-two inches high by thirty-one wide, and fourteen deep, has the door in the centre and the faces of the surrounding drawers panelled with tooled and gilded leather, whose golden ornaments rise on a ground painted azure. The panel on the door carries a fountain surmounted by Cupid and flanked by full-length figures of Philip II and his queen, Margaret of Austria. A French coffer of the end of the fourteenth century, four and one-half inches high, by twelve long, by nine deep, is in brown leather with painting and gilding almost gone. The cover shows a lady and a gentleman in costumes of the period of Charles VI, separated by banderoles bearing inscriptions that are illegible. The handle and elaborate lock are of copper, and copper bars attach the leather that is engraved in concentric rinceaux of delicate form.

Amongst interesting instances of the early use of leather in interior furnishing are the following: In 1380, Charles V of France gave to his brother, the Duke of Orleans, a house that contained "twenty-four pieces of vermilion leather of Aragon, and carpets of Aragon leather, to put on the floor in summer." In 1416, the Duke of Berry had a room of red leather, adorned with coats-of-arms; and Queen Isabella of Bavaria had leather carpets to match the summer hangings of one of her rooms. In 1496, Jehan Garnier, a saddler of Tours, had the sum of four livres, fifteen sous tournoys, granted to him for "a large white ox-skin, delivered and consigned by him to a painter whom the king Charles VIII had sent for from Italy, whom the queen had ordered to make and paint the hangings of her bed."

The inventory of Catherine de Médicis, published by M. Bonnaffé,

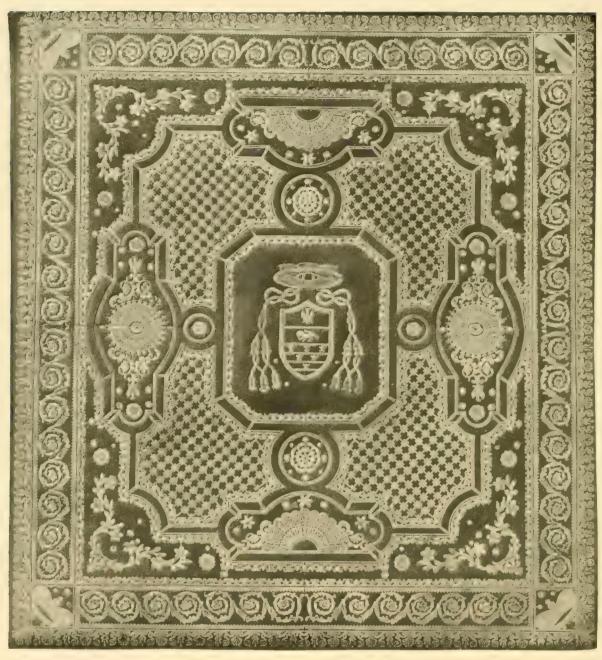


Plate XI PORTFOLIO IN GOLD LEAF DESIGN Reproduced from the back of an Italian cardinal's chair

gives some idea of the richness of illuminated leather in France in the last half of the sixteenth century. We find here gold and silver hangings on an orange ground, with the queen's cipher; others with orange mountings, gilded or silvered, on a violet ground; others, again, seagreen, with mountings similar to the preceding, or else red, with gold and dove-coloured mountings; or blue, with gold, silver and red mountings; not to speak of the many funeral hangings, in which silver figures rise against a black background.

MAKING GILDED LEATHERS IN FRANCE

The only satisfactory treatise on the art of making gold and silver leathers was written by M. Fougeroux de Bondaroy, and published in 1762, as part of Volume XVII of the great *Description des Arts et Métiers*, of the French Academy of Sciences. It has illustrations of tools and processes and an excellent glossary of technical terms. He says:

"The hangings of gold leather that come to France from Flanders are almost all made at Lille, Brussels, Antwerp and Malines, the last being the most esteemed. Very beautiful ones are made at Venice, which we try to imitate. The industry was established in Paris about two centuries ago, by workmen from Flanders, and has been continued by their successors. But because of prejudice, the hangings from Holland and Flanders have had the preference, although those made here were quite as good and quite as beautiful. It must, however, be admitted that our hangings have never been able to equal in perfection the gold leathers coming from England, as well as those coming from Venice. We are compelled to admit that these last two surpass ours in brilliancy, beauty of design and durability. A great advantage of leather hangings is the fact that they are less damaged than cloth and wool by dampness and insects; they lose little of their brilliance with age; they collect little dust, and that little is easily removed by washing with a sponge; they do not furnish nests for the moths in summer that lay their eggs in other tapestries. Yet their ancient vogue no longer continues, and nowadays we see them relegated to the entrance halls of country houses. Leather hangings are made of skins of calf, kid or sheep, which seem gilded; which are silvered, raised in relief and sewed together. In Paris, sheepskins are usually used, although calf and kid are more beautiful and more durable; but they cost more. After the skins are softened and made

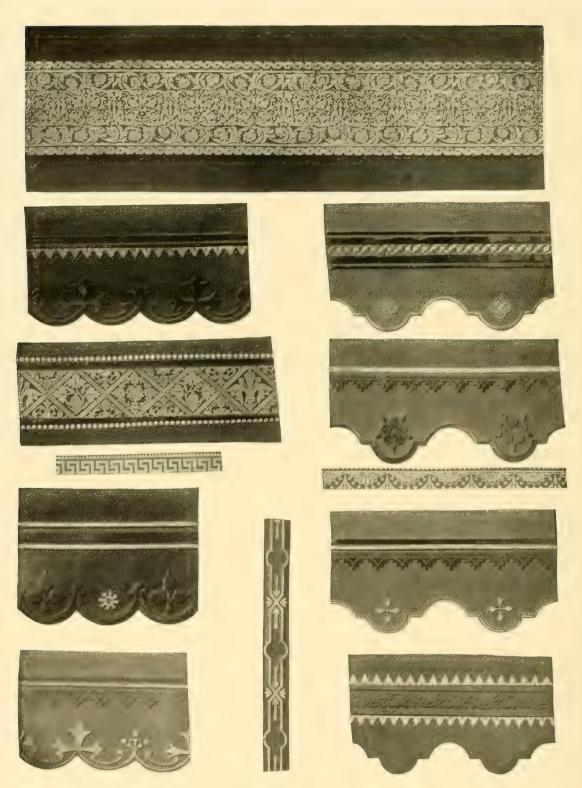
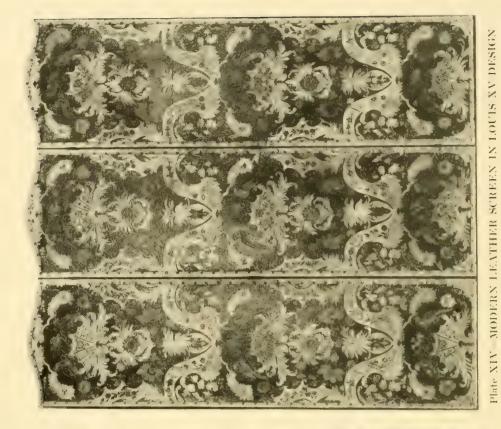


Plate XII EDGINGS FOR BOOKCASES AND TABLES

smooth, they are cut to fit the engraver's block or die, usually about sixteen by twenty-three inches. Then the side where the hair was, which is smoother and firmer than the other, is sized with great care; and leaves of silver about three and one-fourth inches square are applied and beaten home with a fox's tail. The parts of the surface that are to be gold or red or blue are varnished with the proper lacquers. The one that produces gold is a light brown (Fougeroux gives the receipt for making it), and the result is so much like gold that even an expert must examine closely to tell the difference. Gold leaf is seldom used, because it costs too much, but sometimes imitation gold leaf (copper), or imitation silver leaf (tin) are employed. Besides the reliefs received from the block or die in the press, other ornament is often tooled in from chisels or patterned punches called 'irons.' The patterns are tiny florals, rosettes, squares and circles."

The museums of Belgium and Holland, especially the Rijks Museum at Amsterdam, and the Antiquarian Museum at Utrecht, are rich in ancient leathers, some of the sixteenth, but more of the seventeenth century. The drawing room of the great Flemish painter, Rubens, was hung with green leather, adorned in gold with chimeras and children grouped around vases and pillars. That prince of decorative style, Foucquet, whose magnificence aroused the jealousy of his king, Louis XIV, had at his famous chateau Vaux-le-Vicomte "a rich hanging of tapestry of cuir doré from Flanders, consisting of eight pieces." In the last half of the seventeenth century, the great prosperity of Holland enabled every burgomaster to have a gilt leather room in his house. Possibly they preferred leather because of its cleanliness, the hygienic standards being higher among the Dutch than elsewhere at this period. In the last half of the eighteenth century the Dutch still continued to use leather, when in England and France it had been crowded out by wall paper. The designs of Dutch leathers run to tulips and carnations.

Plate II is interesting, not only because it is English Georgian, but especially because it is one of the few "flock" leathers that have survived. The process of figuring leathers in flock is similar to the process employed on wall papers, or in Germany on linens for the imitation of Italian velvets, long before paper was practicable. Plate III shows a Portuguese chair back bearing the tree design with lions, an echo of the ancient Assyrian tree design, preserved in the carved stone tablets of the ninth century B. C., lent by Mr. Morgan to the



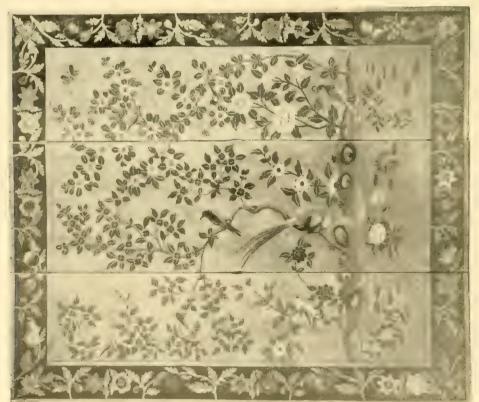


Plate XIII MODERN LEATHER SCREEN IN PERSIAN DESIGN

Metropolitan Museum of Art. Plate V shows an ancient Spanish leather panel with zigzag halo and large pomegranate. Plate VIII is a splendidly typical French leather of the Régence period. Plate IV is a Spanish eighteenth century leather in gold and blue on green. Plate IX is a screen composed of ancient Spanish leather pictures from Avignon. Plate X is an ancient Louis XVI painted leather screen, in six panels of four pictures each, now at Biltmore. Plate XI shows a modern portfolio with design from the back of an Italian cardinal's chair, in gold leaf on antiqued calf. Plate XII shows leather edgings of the kind used today on bookshelves and tables. Plates XIII and XIV show two modern leather screens, one in Persian, the other in Louis XV design.

The author is indebted for the illustrations of this chapter to Charles R. Yandell & Co.

CHAPTER XXI

WORKING BIBLIOGRAPHY OF DECORATIVE TEXTILES

BOOKS, ALL OF WHICH ARE IN THE LIBRARY OF THE METROPOLITAN MUSEUM OF ART, NEW YORK

Especially do I wish to acknowledge my appreciation of Migeon. Les Arts du Tissu (Paris, 1909), a most useful and readable handbook. It has inspired me to attempt in English what its author, the Curator of Mediæval and Renaissance Art in the Louvre, accomplished in French. Because of its simplicity of arrangement and lucidity of style, it continued to render me invaluable assistance long after my own book had far outgrown the scale of its predecessor. M. Migeon's book contains 175 illustrations; separate bibliographical lists on "Decorative Silks," "Embroideries," "Tapestries and Rugs," and "Laces" and an index of names.

Equally important as a constant companion of students and amateurs of Decorative Textiles is Errera, Étoffes Anciennes et Modernes (Brussels, 1907), the small but invaluable catalogue of the Textile Collection of the Brussels Museum, prepared by Madame Isabelle Errera, and containing no less than 600 halftone illustrations.

Noteworthy for its wealth of illustrations of historic silks is Cox, Soicries d'Art (Paris, 1914), the text of which is such as would be expected from the learned Director of the Lyons Textile Museum.

Splendidly instructive historically is the introduction to Rock, Textile Fabrics, a descriptive catalogue of the woven stuffs in the South Kensington Museum (London, 1870).

But the best British handbook on the subject is Cole, Ornament in European Silks (London, 1899), generously illustrated and with an adequate index.

Most important of all books on the subject, with over 600 large and superior illustrations, some in colour, is Falke, Kunstgeschichte

der Seidenweberei (Berlin, 1913), which is all the more valuable because backgrounded by the 330 monumental plates of Lessing, Gewebe-Sammlung, that reproduces with wonderful detail of pattern and texture, and largely in colour, the principal woven treasures of the Berlin Museum.

Cox. L'Art de Décorer les Tissus (Lyons, 1900), is backgrounded by the magnificent textile collections of the Lyons Museum, and has splendid plates, many of them in colour, and an important historical preface and descriptions by Raymond Cox, who prepared the work for the Chamber of Commerce of Lyons, to serve as a monumental guide to the masterpieces contained in their Textile Museum. The illustrations include Coptic and other Tapestries, Oriental Rugs and Laces, as well as Byzantine, Persian, Sicilian, Italian and later Damasks, Brocades and Velvets.

Backgrounded mainly by the textile collections of the Vienna Museum is Dreger, Künstlerische Entwicklung der Weberei und Stickerei (Vienna, 1904), with one volume of text, two volumes of plates, and an excellent index.

Indispensable to all who wish to become acquainted with the textile collections of the Metropolitan Museum of Art is the supplement to the Bulletin of the Museum (May, 1915), entitled "The Textile Collection and Its Use."

Large volumes of coloured plates are: Dupont-Auberville, Ornement des Tissus (Paris, 1877), and Fischbach, Ornamente der Gewebe (Hanau, 1882). The author of the latter was Director of the Art Industrial School at St. Gall in Switzerland, and the book was also published in England, with plate descriptions in English as well as the original German. Fischbach, Wichtigsten Webe-Ornamente, with 214 coloured plates and an historical introduction (Wiesbaden, 1901), was a much more ambitious attempt, and included hundreds of patterns made accessible during the intervening generation by the extraordinary growth and development of textile collections in European museums. Fischbach's own collection, it is interesting to note, is now a part of the collection of the New York Metropolitan Museum of Art, and contains many examples that were reproduced in his books.

Textiles and Textile Designs, including Tapestries, Laces and Rugs in the Paris Musée des Arts Décoratifs, will be found illustrated, but imperfectly and without adequate descriptions, in Series

IV, VI, XII of the Nouvelles Collections de l'Union Centrale published in Paris serially by Guérinet. See also Volume VII of Le Musée des Arts Décoratifs, also issued serially by the same publisher.

Finely illustrated volumes are: Pasco, Catalogue of the Badia Collections (Barcelona, 1900), which is now a part of the Morgan collection in the New York Cooper Museum; Cornu, La Collection Besselièvre (Paris, n. d.), the cataloguer being the Librarian of the Musée des Arts Décoratifs, and the 116 examples taken mostly from the XVI, XVII and XVIII centuries, with a few from the XV and XIX; Guiffrey-Migeon, La Collection Kelekian, 100 plates of Venetian and Oriental damasks, brocades, velvets and rugs (Paris, n. d.); Cluny Museum, Etoffes Anciennes, mostly of the XVI, XVII, XVIII centuries; DUMONTHIER, Étoffs d'Ameublement (Paris, 1909 and 1914), two separate books on Empire Decorative Textiles by the Administrator of the French Mobilier National; DUMONTHIER, Etoffes et Tapisseries, on French Decorative Textiles and Tapestries of the XVII and XVIII centuries by the same author; Kumsch, Muster Orientalische Gewebe und Druckstoffe (Dresden, 1893), illustrating 212 patterns of Oriental woven and printed fabrics in the Dresden Museum.

CLOUZOT, Le Métier de la Soie, is an illustrated history of silk weaving in France from 1466 to 1815, together with the history of Toile Imprimée (Chintzes and Cretonnes) in France from 1759 to 1815 (Paris, n. d.); Michel, Étoffes de Soie (Paris, 1852), is an exhaustive literary history, with splendid index, of the commerce, manufacture and use of Silk, Gold and Silver, and other precious textiles in the Occident, principally in France, in the Middle Ages; Pariset, Industries de la Soie (Paris, 1890), is a history of silk, largely from the industrial point of view.

Blanchet, *Tissus Antiques* (Paris, 1907), illustrates and discusses learnedly Coptic, Early Mediæval, and early Swiss textiles.

Algour, Le Velours (Paris, n. d.), is a volume devoted entirely to Velvets, with a valuable preface and splendid illustrations. On velvets as now made in England, see Vallance, Velvets, Velveteens and Plushes (Art Journal, 1891, p. 230 +).

SPANISH, MOHAMMEDAN AND PERSIAN

ARTINAÑO, Tejidos Españoles (Madrid, 1917), is the sumptuous illustrated catalogue of the Madrid Exposition of Spanish Textiles;

SARRE-MARTIN, Muhammedanischer Kunst (Munich, 1912), is three splendid volumes containing 257 plates, partly in colour, with important and extensive text, illustrating amongst other objects exhibited at the world-famous Munich, 1910, Exhibition of Mohammedan Art, Damasks, Brocades, Velvets, Embroideries and Oriental Rugs; Martin, Persische Stoffe (Stockholm, 1899), is a volume devoted to Persian Textiles with Personages, dating from 1550 to 1660; Martin, Persische Prachtstoffe (Stockholm, 1901), a volume devoted to the splendid Persian fabrics in Castle Rosenborg at Copenhagen.

CHINESE AND JAPANESE

Tizac, Étoffes de la Chine (Paris, n. d.), is devoted by the Curator of the Musée Cernuschi to the woven and embroidered silks of China. Verneuil, Japanese Textiles (Paris and London, 1910), in 80 coloured plates illustrates 200 choice woven examples for importers, museums and private collections; Tokio Museum, Orimon-Ruizan, in ten volumes and in colour, illustrates vividly Old Japanese Textiles and Wall Coverings.

SHAWLS AND COVERLETS

Blair, Paisley Shawls (Paisley, 1904), is devoted by the Chairman of the Textile College of Glasgow to the history of the now extinct industry that so successfully reproduced on the shuttle loom the effects of the Oriental Cashmere shawls made on the tapestry loom, or by the embroiderer in small pieces; Hall, Handwoven Coverlets (Boston, 1912), helps to immortalise "Hickory Leaf," "Lee's Surrender," "Sally Rodes," "Old Ireland," "Downfall of Paris," "Declaration of Independence," and many other Colonial patterns, illustrating many of them in black and white and in colour.

More ambitious in what they attempt than in what they accomplish are Harmuth, *Dictionary of Textiles* (New York, 1915), which is nevertheless of great importance as a record of names actually used in the American market; Heiden, *Textilkunst des Alterthums bis der Neuzeit* (Berlin, 1909); Heiden, *Handwörterbuch der Textilkunde* (Stuttgart, 1904).

The best book for technical students of mechanical weaves is Watson, *Textile Design and Colour* (London, 1912). An up-to-date modern technical handbook is Nystrom, *Textiles* (New York, 1916).

LACES AND EMBROIDERIES

The largest book on Laces is Ricci, Antiche Trine Italiane Bergamo, 1908), in two volumes, the first devoted to Needle Lace, and the second to Bobbin Lace, and both carrying a wealth of illustrations and text which bring out the facts about the Origin and Development of European Laces in Italy in the fifteenth and sixteenth centuries. An English translation has been published by J. B. Lippincott Company of Philadelphia.

An excellent small book is Jackson-Jesurum, History of Handmade Lace (London, 1900). Besides the general history of Laces, it contains valuable dictionary of Laces (pp. 107-206), as well as a glossary of terms and an excellent index. It is richly illustrated, has an excellent descriptive bibliography in Chapter XI, and entirely supersedes Palliser, History of Lace, the third edition of which was published in London in 1875. Also helpful is Jourdain, Old Lace (London, 1908). Indispensable because of its illustrations is Pollen, Seven Centuries of Lace (London, 1908).

A good introduction to the study of French Laces is Lefebure, Dentelles, constituting his report on Class 84 at the Paris Exhibition of 1900, and translated into English (New York, 1912) by Margaret Taylor Johnston. The little volume is well illustrated. Larger and more comprehensive is Lapauze, Le Poinct de France (Paris, 1905). Laces of the Paris Musée des Arts Décoratifs are illustrated in Series VII of the Nouvelles Collections.

Dreger, Entwicklungs geschichte der Spitze (Vienna, 1910), is backgrounded by the Lace collections of the Vienna Museum.

An excellent illustrated catalogue is that of the Ricci sale of sixteenth and seventeenth century laces, New York, 1915.

For the history and description of machine-made Laces see Felkin, *Hosiery and Lace* (London, 1876); Henon, *Tulles et Dentelles Mécaniques* (Paris, 1900).

A magazine devoted to Laces and Embroideries is the *Bullentin* of the Needle and Bobbin Club (New York, 1916).

EMBROIDERIES

The most useful single book on Embroideries is Errera, Broderies Anciennes, a richly illustrated catalogue of the collection in the Brussels Museum (Brussels, 1905). The practical side is well treated in Christie, Embroidery and Tapestry Weaving (London,

1912); DAY-BUCKLE, Art in Needlework (London, 1914), and HANDS, Church Needlework (London, 1909). A peculiarly domestic and Colonial form of art is treated in Webster, Quilts and How to Make Them (New York, 1915).

LEFEBURE, Embroidery and Lace (London, 1888), translated from the French and annotated by Alan S. Cole, combines two arts not unskilfully in small space, while Alford, Needlework as an Art (London, 1886), with fine illustrations of splendid pieces, such as the Syon Cope and Charlemagne's Dalmatic, scants lace but also admits tapestry and furniture, while giving the main space to Embroidery.

Other helpful books on Embroideries are Kendrick, English Embroidery (London, 1904); Jourdain, English Secular Embroidery (London, 1910); and Townsend, Embroidery, or the Craft of the Needle (London, 1907).

Martin, Stickereien aus dem Orient (Stockholm, 1899), shows 18 plates of Persian, Bokhara and Anatolian embroideries from his own collection. Quaint and interesting are the subjects treated in Huish, Samplers and Tapestry Embroideries (London, 1913).

CARPETS AND RUGS

The most important book on Oriental Rugs is Martin, History of Oriental Carpets before 1800 (Vienna, 1908). Here alone is the story of the historical development of the art told adequately. Here the work of Lessing and of Bode is brought to its full fruition. If a museum can afford but one book on the subject, this should be the one. It is luxuriously illustrated, with text illustrations of other forms of historic art, which help to explain the design course of knotted floor coverings.

The largest book on Oriental Rugs is Clarke, Oriental Carpets, the English edition of the three huge volumes containing 148 photogravure plates, besides much introductory text, published in Vienna (1892-96) by the Austrian Commercial Museum. A supplementary volume containing 25 plates in colour, with introduction by Bode, text by Frederick Sarre, and descriptions by Dreger, was published in Leipsic in 1908.

Other books containing large plates of Oriental Rugs are: Robinson, Eastern Carpets (London, 1882); Hendley, Asian Carpets, XVI and XVII century designs from the Jaipur palaces

(London, 1905); Andrews, One Hundred Carpet Designs from Various Parts of India (London, 1906).

The best American books on the subject are those of Mumford, Lewis and Hawley, the latter being preferable for classification purposes. Very helpful is the catalogue prepared for the Tiffany Studios by Mrs. Ripley (New York, 1907), the subtitle of which is "Rugs of the Chinese Empire. A mile-post in American connoisseurship is Dr. Valentiner's Early Oriental Rugs (New York, 1910), the catalogue of a loan exhibition held in the Metropolitan Museum of Art. Important also is the catalogue of the Ballard Collection of Ghiordes Rugs (St. Louis, 1916), and the sale catalogue of the Clarke Collection of Chinese Rugs (New York, 1915).

Indispensable as a small handbook of the subject is the illustrated *Guide to the Collection of Carpets* of the South Kensington Museum.

MACHINE-MADE CARPETS AND RUGS

Humphries, Oriental Carpets (London, 1910), contains an important chapter on Joseph Marie Jacquard and machine-woven rugs. Still more important on the same subject is the article The Making of Tapestry and Brussels Carpets (Art Journal, 1895, p. 237+), and Millar, The Making of Carpets (Art Journal, 1908, p. 19+). The early history of Savonneries is told in Dupont, Stromatourgie (Paris, 1632).

TAPESTRIES

The best handbook on the subject is my own Tapestries, their Origin, History and Renaissance (New York, 1912), with 4 illustrations in colour and 147 in black and white, a comprehensive name and subject index, besides a separate index of Bibliography, chapters on the Bibliography of Tapestries, the Tapestries at the Metropolitan Museum, the Texture of Tapestries, the Bible in Tapestries, History and Romance in Tapestries, Tapestry Point of View and Perspective, The Care of Tapestries, Tapestry Signatures and Makers, Tapestry Design and Cartoons, French Tapestries, Flemish Tapestries, English Tapestries, Gothic Tapestries, Renaissance Tapestries, American and other Tapestries.

The first two handbooks on the subject were MÜNTZ, Lo Tapisserie (Paris, 1881), with English translation (London, 1885);

and Guiffrey, Histoire de la Tapisserie (Tours, 1886). The next was Thomson, History of Tapestry (London, 1906), who added much to our knowledge of English tapestries; and added still more in 1914, when he published his finely illustrated Tapestry Weaving in England.

A monumental and definitive work on the Gobelins is Fenaille, Etat Général de la Manufacture des Gobelins, in five volumes (four volumes already published), with hundreds of large photographic illustrations and a wealth of documents and records giving everything that could throw light on the activities and products of the Gobelins. A perfect small handbook of the Gobelins is Guiffrey, Les Gobelins et Beauvais (Paris, 1908), with 94 illustrations in halftone; Badin, La Manufacture de Tapisseries de Beauvais (Paris, 1909), illustrates 30 Beauvais tapestries, and prints many documents bearing on the history of that establishment.

The best book on Gothic and Renaissance tapestries is Guiffrey, Les Tapisseries (Paris, 1911), in the Molinier series of Arts Appliqués á l'Industrie, with splendid illustrations and an excellent index.

The most important illustrated works on the collections of different countries are: (1) Spanish, Valencia, Tapices de la Corona de España (Madrid, 1903); Tapestries and Carpets from the Prrado (New York, 1917); (2) Austrian, Birk, Niederlander Tapeten und Gobelins, published in the first four volumes of the Vienna Jahrbuch (Vienna, 1883-6); (3) French, Guichard, Les Tapisseries Décoratives du Garde Meuble (Paris, 1881); Sartor, Les Tapisseries de Rheims (Rheims, 1912); Loriquet, Les Tapisseries de la Cathedrale de Rheims (Paris, 1882); Les Tapisseries de la Cathedrale d'Angers (Leipzig, 1892), containing 72 photographs of the Apocalypse set; (4) Swedish, Boettiger, Svenska Statens Samling af Väfda Tapeter (Stockholm, ——); Italian, Müntz, Les Tapisseries de Raphael au Vatican (Paris, 1897); (5) American, Ffoulke, Collection of Tapestries (New York, 1913); (6) Swiss, Weese, Die Casar Teppiche (Berne, 1911).

Important books on Flemish Tapestries are: Wauters, Les Tapisseries Bruxelloises (Brussels, 1878); Soil, Les Tapestries de Tournai (Tournai, 1892).

The best museum catalogue is Destrée, Les Tapisseries des Musées Royaux du Cinquantenaire (Brussels, 1910), with many

illustrations. The best national inventory is Guiffrey, Les Tapisseries du Garde Meuble (Paris, 1900).

The first important book published on Tapestries was Jubinal, Les Anciennes Tapisseries Histoirées, in two volumes, with 123 large hand-coloured line plates from drawings by Victor Sansonetti (Paris, 1838). The largest book on tapestries is the great Histoire Générale de la Tapisserie (Paris, 1874-84); the French volume by Guiffrey; the Flemish volume by Pinchart; the Italian, German and English volumes by Müntz.

The most extensive bibliography is Guiffrey, La Tapisscrie (Paris, 1904), with 1083 titles and an excellent index.

Splendidly illustrated exhibition catalogues are: Wauters, Les Tapisseries Histoirées à l'Exhibition Belge de 1880 (Brussels, 1881); Destrée, Tapisseries à l'Exhibition d'Art Ancien Bruxellois, 1905 (Brussels, 1906); Chefs-d'Oeuvres d'Art Ancien à l'Exposition de la Toison d'Or, Bruges, 1907 (Brussels, 1908).

Catalogues of important American exhibitions are those of: Boston, 1893; Washington, —; Brooklyn, 1913; Avery Library, New York, 1914; Buffalo, 1914; Philadelphia, 1915.

The best sale catalogues are those of the Somzée sale, Brussels, 1901; the Spitzer sale, Paris, 1903; the Berwick and Alba sale, Paris, 1877; the Lowengard sale, Paris, 1910.

Important American sale catalogues (all New York) are the Marquand, 1903; White, 1907; Poor, 1909; Garland, 1909; Yerkes, 1911; Hoe, 1911; Robb, 1912; Lydig, 1913.

The best catalogues of private collections are: Spitzer, 1890; Gaillard, Paris, 1904; Le Roy, 1908; Kann, 1907; Hoentschel (now part of the Morgan Collection in the Metropolitan Museum of Art), 1908; Morgan, Paris, 1913; Tuck, Paris, 1910.

CHINTZES AND CRETONNES

The most important illustrated works on the subject are: Clouzot, Histoire de la Toile Imprimée en France, printed in the same volume with Clouzot, Le Métier de la Soie, listed above; Clouzot, La Manufacture de Jouy, in ten parts, of which five have already been published, at Versailles; Huet, Desseins pour la Manufacture de Jouy—two portfolios illustrating the designs made by the famous Jean Baptiste Huet and other lesser lights for Oberkampf to use on printed cloths at Jouy, now preserved in the Paris Musée

des Arts Décoratifs, and published as Series IX and IX bis of the Nouvelles Collection de l'Union Centrale; Forrer, Die Zeugdrucke der byzantischen, romanischen, gothischen und spätern Kunstepochen (Strasburg, 1894); Forrer, Die Kunst der Zeugdrucke vom Mittelalter bis zur Empirezeit (Strasburg, 1898).

ROUFFAER, De Batik-kunst in Nederlandsch-Indie (Utrecht, 1914), is a monumental volume on Batik work. economic and legislative history of the industry in France in the XVII and XVIII centuries.

WALL PAPERS

Important historical studies are: Clouzot, La Tradition du Papier Peint en France (Gazette des Beaux-Arts, 1912); Clouzot, Papiers Peints de l'Époque Napolienne (Gazette des Beaux-Arts, 1914); Follot, Papiers Peints à l'Exposition de 1900, the privately printed report of the committee that organised and installed the exhibit of historical wall papers.

Other magazine articles are: Bruehler, *Die Tapete und Elsass* (Das Kunstgewebe in Elsass—Lothringen, Strasburg, 1900); Vallance, *Wall Papers* (Magazine of Art, 1904); Vallance, *New Designs for Wall Paper* (Art Journal, 1902).

For modern processes of manufacture see illustrated articles in the Decorative Furnisher and in the Wall Paper News (New York).

A valuable portfolio illustrating modern reproductions of historic French Wall Papers, most of them printed from the original blocks, has been published by the American agents, A. L. Diament & Co. (Philadelphia, ——).

The literature of Trimmings and Illuminated Leathers is scanty and unsatisfactory. I have given some references in the text of Chapters XIX and XX.

INDEX AND GLOSSARY

The illustrated definitions of textile terms contained in this volume, supply a long and frequently expressed want. To facilitate their use as a Glossary, the Index has been made unusually complete. For obvious reasons the Index does not include the plate pages, or the chapter on Bibliography, except as regards the heading, Museums, to which special attention is called.

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